

Service Manual

Pioneer

ORDER NO.
CRT2645

BRIDGEABLE POWER AMPLIFIER

PRS-X720

X1H/UC

PRS-X320

X1H/UC

PRS-X220

X1H/UC

● This service manual should be used together with the following manual(s):

Model	Order No.	Mech. Module	Remarks
PRS-X720/X1R/UC	CRT2361		

EXPLODED VIEWS AND PARTS LIST

PACKING(Page 2)

● PACKING SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.			
		PRS-X720/X1R/UC	PRS-X720/X1H/UC	PRS-X320/X1H/UC	PRS-X220/X1H/UC
1	Screw Assy	HEA0047	HEA0057	HEA0057	HEA0057
	Screw Assy	HXA0323	HXA0364	HXA0364	HXA0364

EXTERIOR(Page 4)

● EXTERIOR SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.	
		PRS-X720/X1R/UC	PRS-X720/X1H/UC
14	Amp Unit	HWH0091	HWH0159

EXTERIOR(Page 6)

● EXTERIOR SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.	
		PRS-X320/X1R/UC	PRS-X320/X1H/UC
14	Amp Unit	HWH0095	HWH0160

EXTERIOR(Page 8)

● EXTERIOR SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.	
		PRS-X220/X1R/UC	PRS-X220/X1H/UC
14	Amp Unit	HWH0099	HWH0161

PIONEER CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER EUROPE NV Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 253 Alexandra Road, #04-01, Singapore 159936

Service Manual

Pioneer

PRS-X720/X1R/UC



ORDER NO.
CRT2361

BRIDGEABLE POWER AMPLIFIER

PRS-X720

PRS-X320

X1R/UC

PRS-X220

X1R/UC

X1R/UC

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1. SAFETY INFORMATION

CAUTION

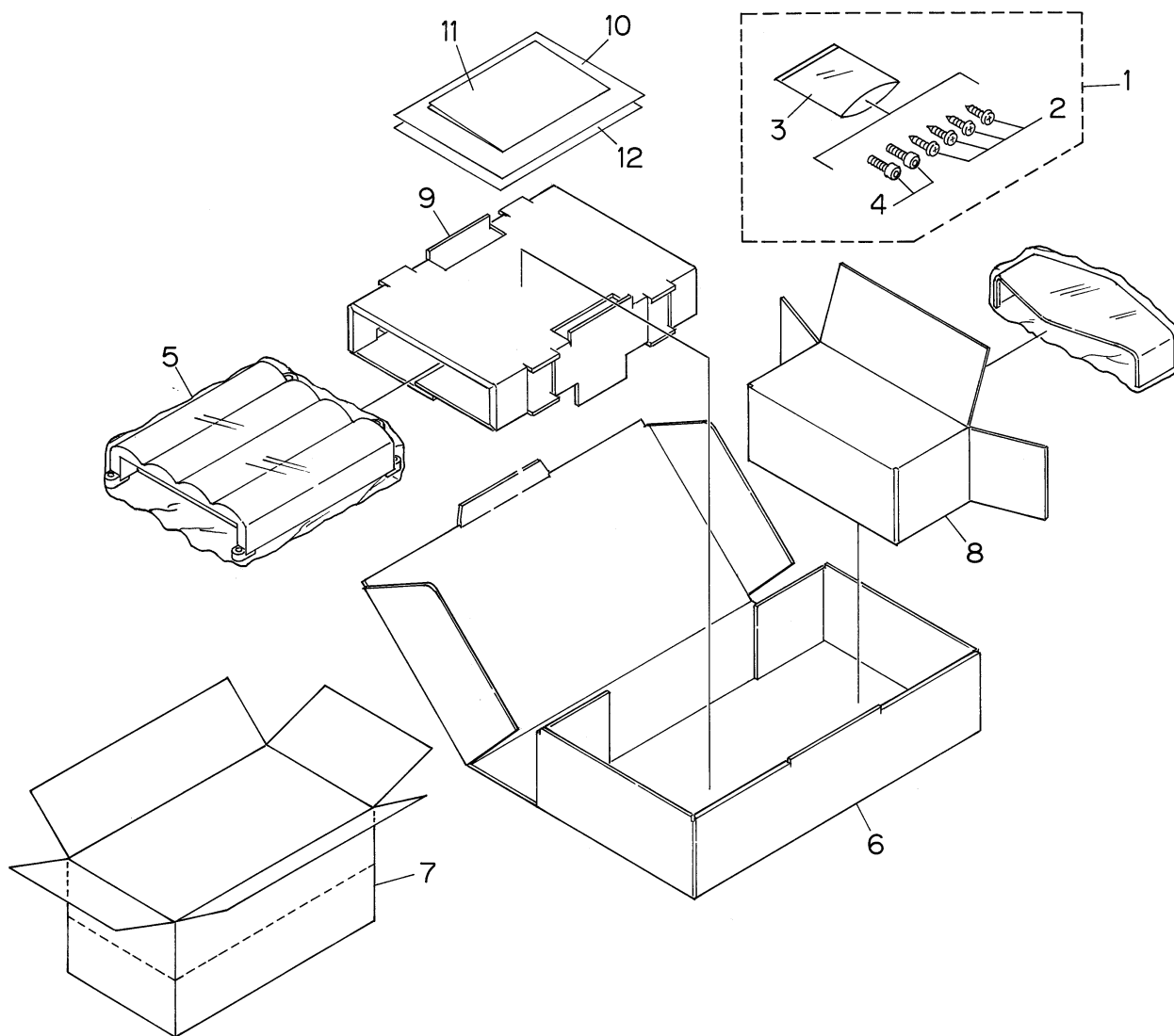
This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

- Parts marked by “*” are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.

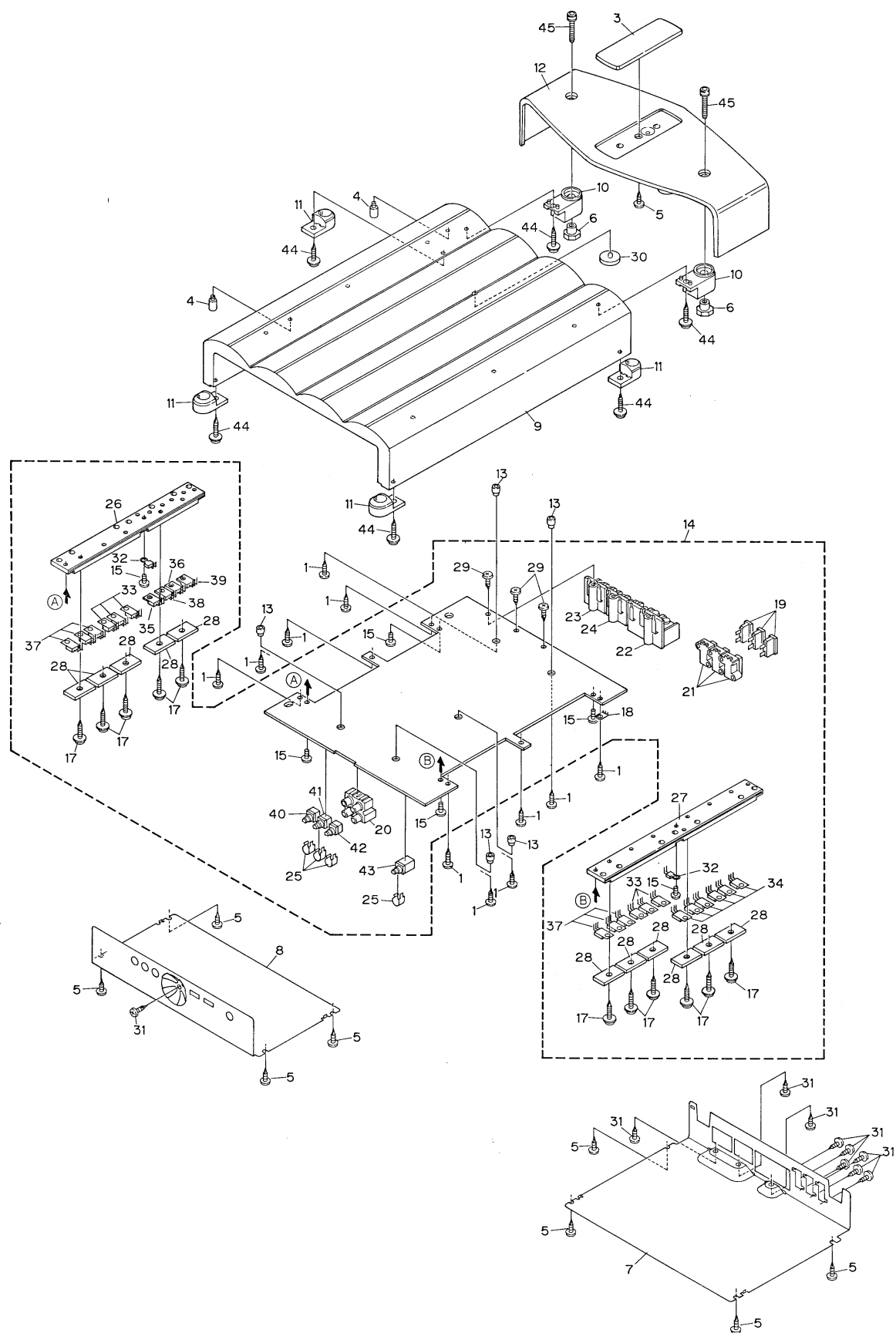
● PACKING SECTION PARTS LIST

Mark No.	Description	Part No.		
		PRS-X720/X1R/UC	PRS-X320/X1R/UC	PRS-X220/X1R/UC
1	Screw Assy	HEA0047	HEA0047	HEA0047
2	Screw	BYC40P180FZK	BYC40P180FZK	BYC40P180FZK
3	Polyethylene Bag	HEG0011	HEG0011	HEG0011
4	Screw	SMZ50H300FCR	SMZ50H300FCR	SMZ50H300FCR
5	Polyethylene Bag	HEG0022	HEG0022	HEG0022
6	Carton	HHG0170	HHG0171	HHG0172
7	Contain Box	HHL0170	HHL0171	HHL0172
8	Protector	HHP0043	HHP0043	HHP0043
9	Protector	HHP0063	HHP0064	HHP0065
* 10	Spec Sheet	HRB0044	HRB0043	HRB0040
11	Owner's Manual	HRD0087	HRD0087	HRD0087
* 12	Warranty Card	HRY1070	HRY1070	HRY1070

● Owner's Manual

Model	Part No.	Language
PRS-X720/X1R/UC PRS-X320/X1R/UC PRS-X220/X1R/UC	HRD0087	English, French

2.2 EXTERIOR(PRS-X720/X1R/UC)

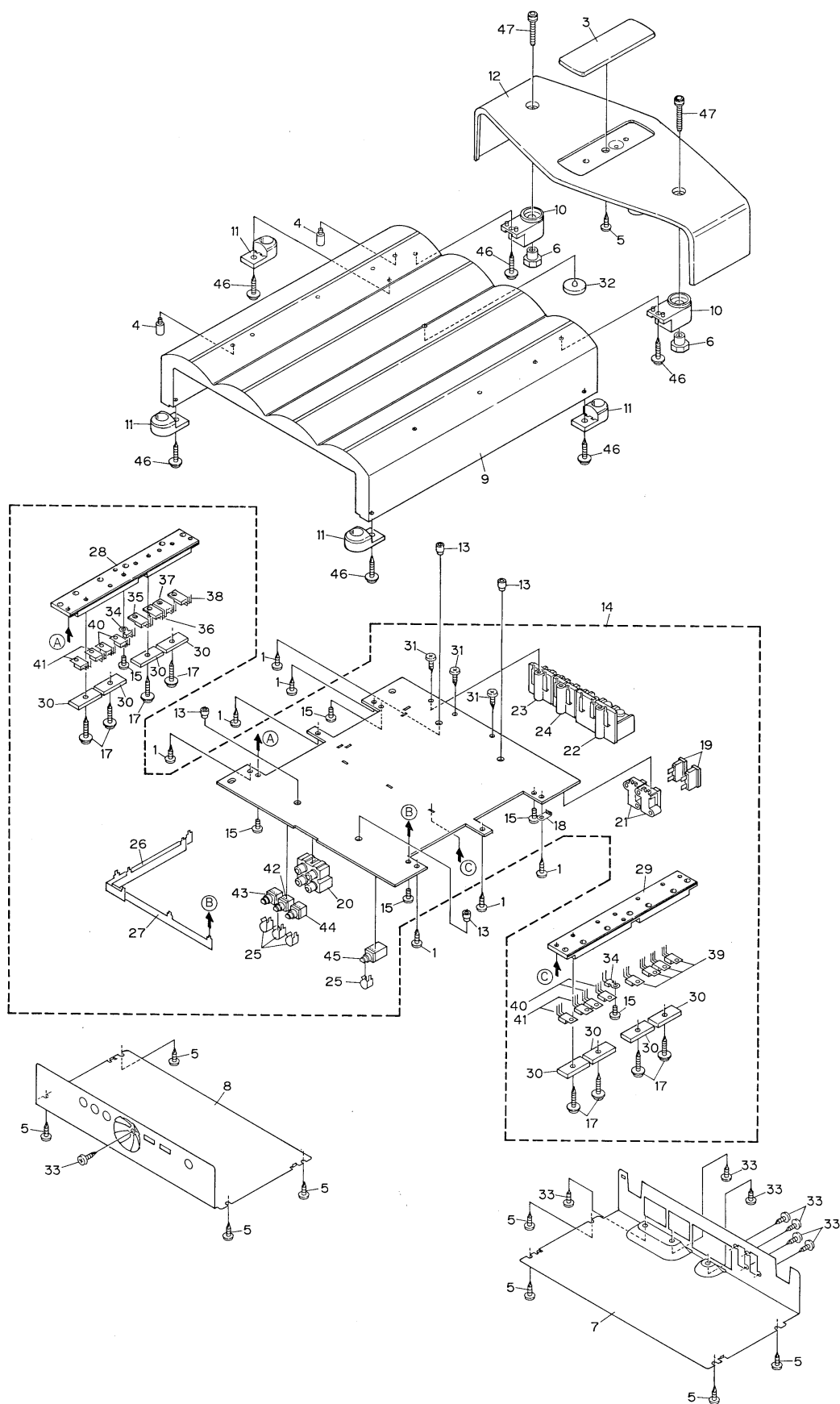


● EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw(M3×12)	CBA1323
	2	.....
*	3	Badge	HAM0013
	4	Screw(M3×5)	HBA0006
	5	Screw(M3×8)	HBA0011
	6	Insert	HBN0003
	7	Case	HNB0087
	8	Case	HNB0089
	9	Heat Sink	HNR0110
	10	Bracket	HNS0070
	11	Bracket	HNS0071
	12	End Cap	HNS0072
	13	Spacer	HNV0016
	14	Amp Unit	HWH0091
	15	Screw	BBZ30P060FMC
	16	.....
	17	Screw(M3×14)	CBA1382
	18	Terminal(CN905)	CKF1059
	19	Fuse(30A)	HEK0030
	20	Pin Jack(CN851)	HKB0006
	21	Fuse Holder	HKE0012
	22	Terminal(CN901)	HKE0020
	23	Terminal(CN551)	HKE0021
	24	Terminal(CN552)	HKE0021
	25	Clip	HNC0054

Mark	No.	Description	Part No.
	26	Heat Sink	HNR0113
	27	Heat Sink	HNR0114
	28	Bar	HNR0124
	29	Screw	PPZ30P100SAD
	30	Light Pipe Unit	HXA0201
	31	Screw	PPZ30P100FZK
	32	Thermistor(TH901, 902)	CCX1013
	33	FET(Q561-566)	94-4980
	34	FET(Q905, 906, 911-914)	STP50NE08
	35	Transistor(Q907)	2SD2395
	36	Diode(D907)	FML22S
	37	FET(Q567-572)	94-4981
	38	Transistor(Q908)	2SB1566
	39	Diode(D910)	FML22R
	40	Variable Resistor(VR453)	CCS1265
	41	Volume(VR451)	HCS0001
	42	Variable Resistor(VR452)	CCS1263
	43	Variable Resistor(VR101)	CCS1266
	44	Screw(M3×14)	HBA0017
	45	Screw	SMZ50H300FCR

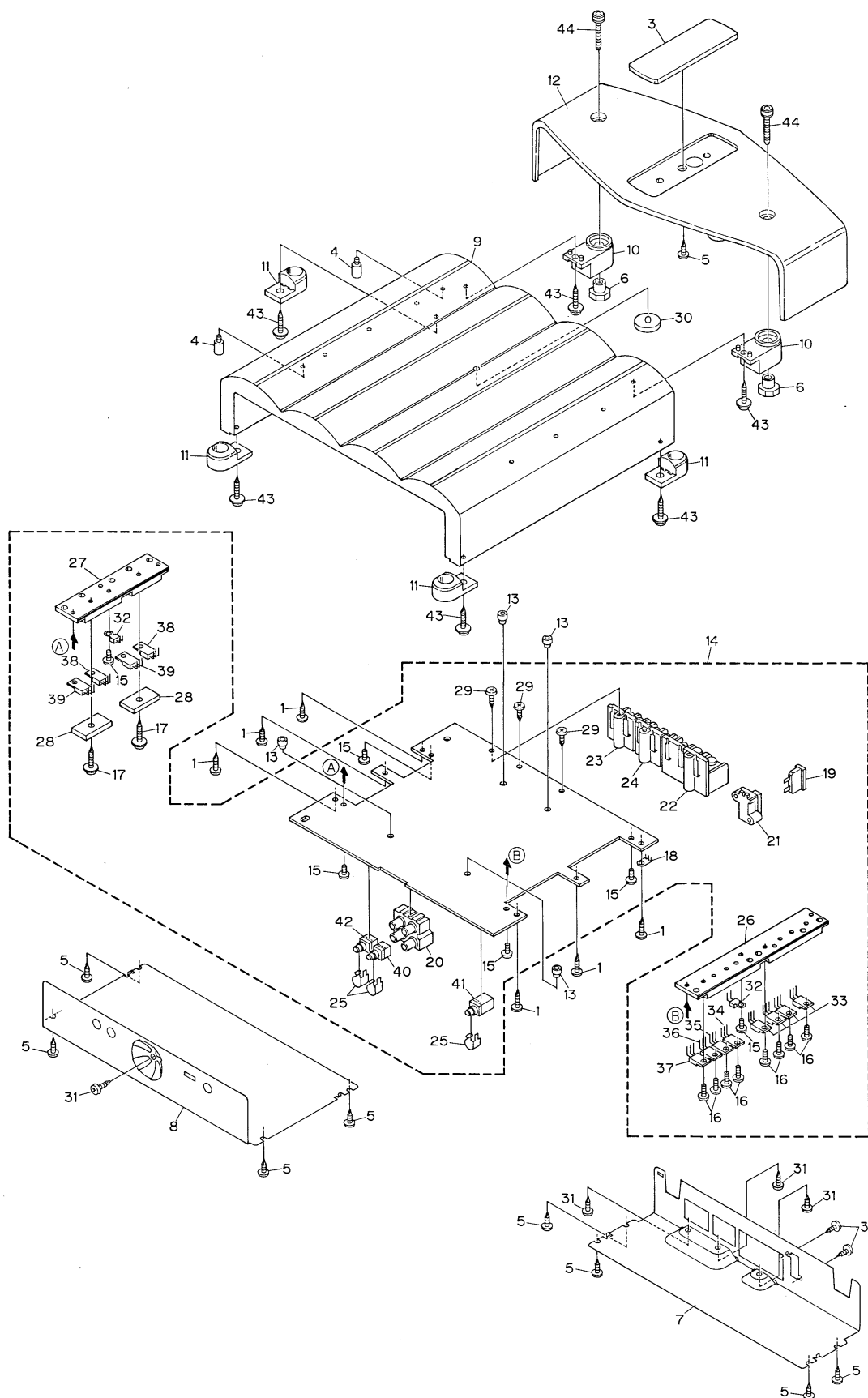
2.3 EXTERIOR(PRS-X320/X1R/UC)



● EXTERIOR SECTION PARTS LIST

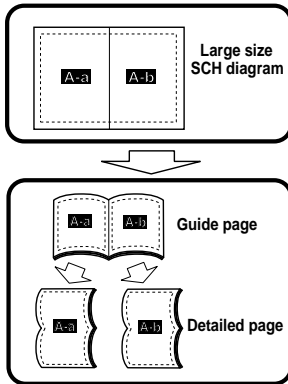
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Screw(M3×12)	CBA1323		26	Buss Bar	HNC0064
	2	.....			27	Buss Bar	HNC0065
*	3	Badge	HAM0013		28	Heat Sink	HNR0115
	4	Screw(M3×5)	HBA0006		29	Heat Sink	HNR0116
	5	Screw(M3×8)	HBA0011		30	Bar	HNR0124
	6	Insert	HBN0003		31	Screw	PPZ30P100SAD
	7	Case	HNB0086		32	Light Pipe Unit	HXA0201
	8	Case	HNB0089		33	Screw	PPZ30P100FZK
	9	Heat Sink	HNR0111		34	Thermistor(TH901, 902)	CCX1013
	10	Bracket	HNS0070		35	Transistor(Q908)	2SB1566
	11	Bracket	HNS0071		36	Transistor(Q907)	2SD2395
	12	End Cap	HNS0072		37	Diode(D907)	FML22S
	13	Spacer	HNV0016		38	Diode(D910)	FML22R
	14	Amp Unit	HWH0095		39	FET(Q905, 906, 911, 912)	STP50NE08
	15	Screw	BBZ30P060FMC		40	FET(Q563, 564, 565, 566)	94-4980
	16	.....			41	FET(Q567, 568, 569, 570)	94-4981
	17	Screw(M3×14)	CBA1382		42	Volume(VR451)	HCS0001
	18	Terminal(CN902)	CKF1059		43	Variable Resistor(VR453)	CCS1265
	19	Fuse(30A)	HEK0030		44	Variable Resistor(VR452)	CCS1263
	20	Pin Jack(CN851)	HKB0006		45	Variable Resistor(VR101)	CCS1266
	21	Fuse Holder	HKE0012		46	Screw(M3×14)	HBA0017
	22	Terminal(CN901)	HKE0020		47	Screw	SMZ50H300FCR
	23	Terminal(CN651)	HKE0021				
	24	Terminal(CN652)	HKE0021				
	25	Clip	HNC0054				

2.4 EXTERIOR(PRS-X220/X1R/UC)

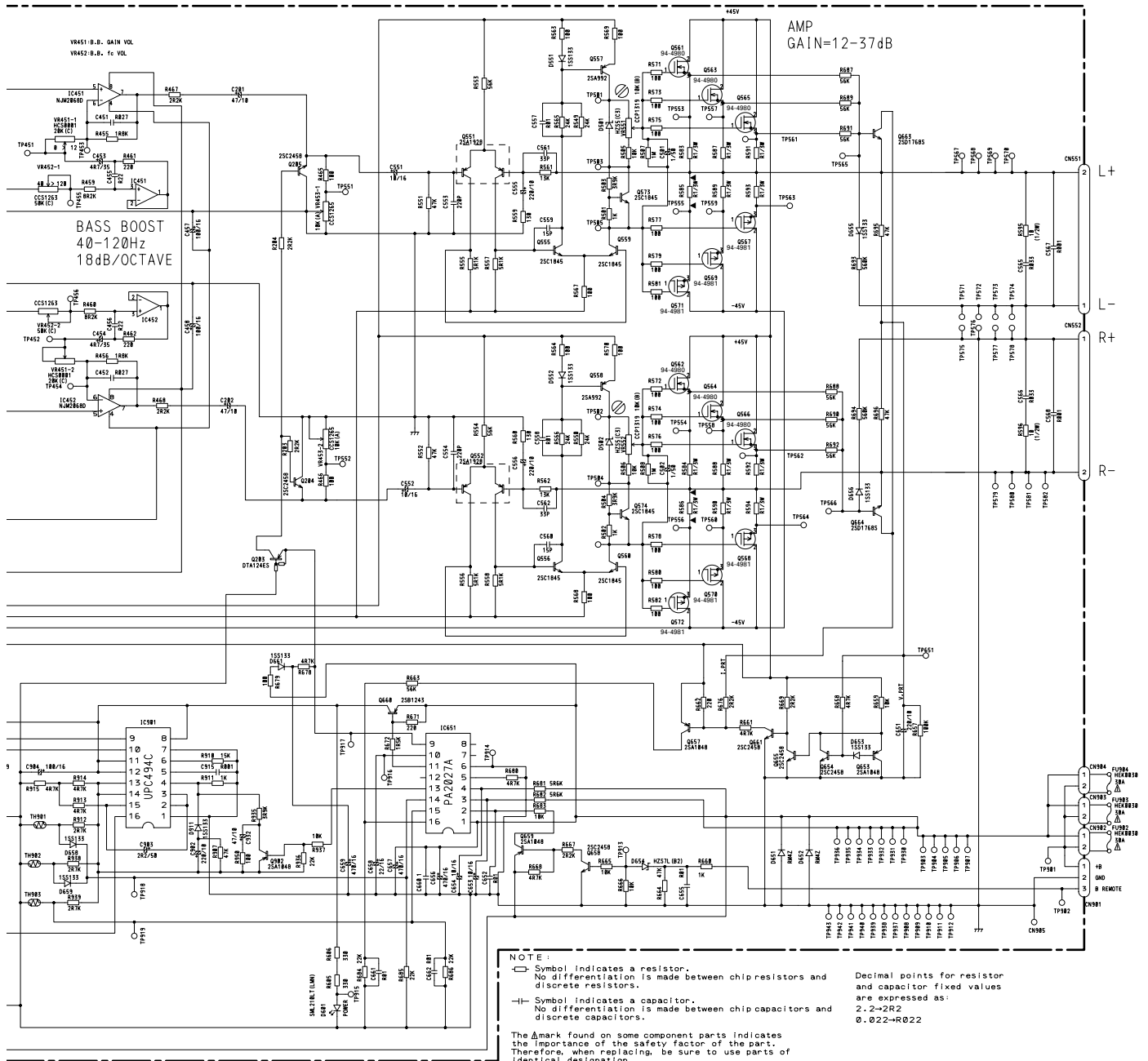


● EXTERIOR SECTION PARTS LIST

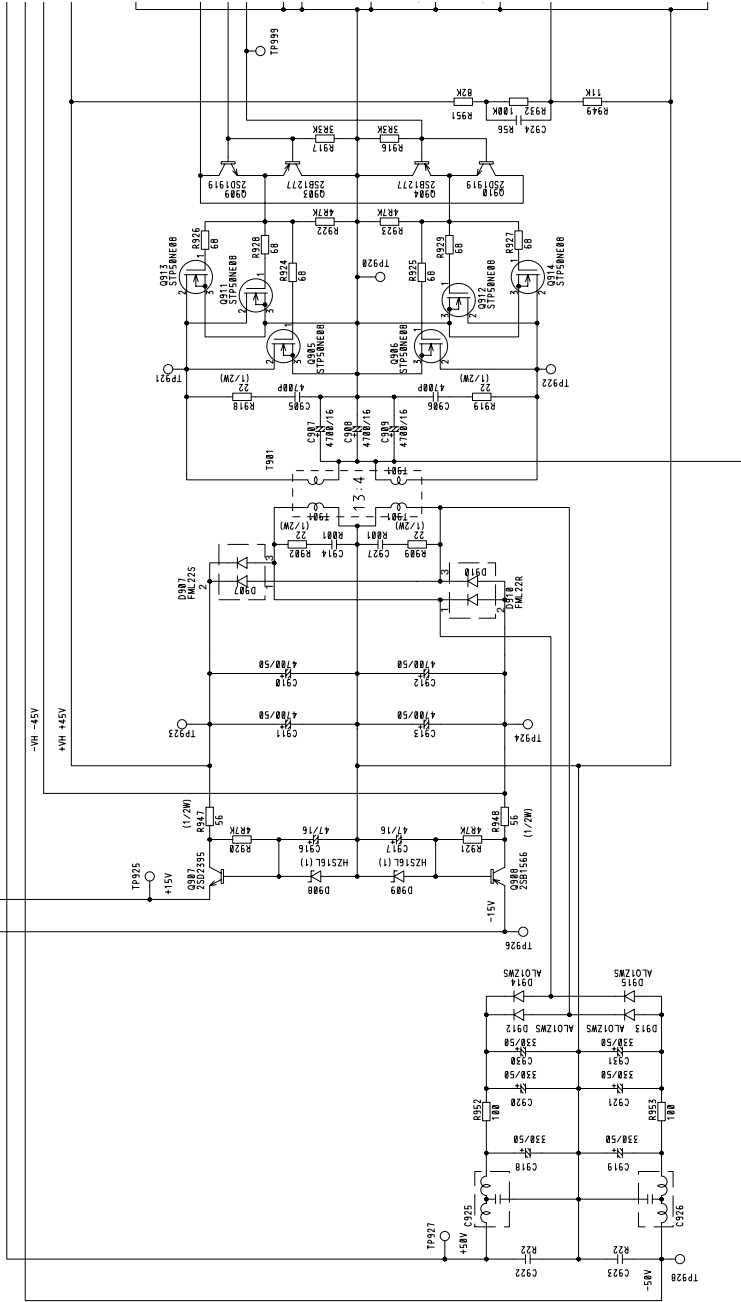
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Screw(M3×12)	CBA1323		26	Heat Sink	HNR0117
	2	.....			27	Heat Sink	HNR0118
*	3	Badge	HAM0013		28	Bar	HNR0124
	4	Screw(M3×5)	HBA0006		29	Screw	PPZ30P100SAD
	5	Screw(M3×8)	HBA0011		30	Light Pipe Unit	HXA0201
	6	Insert	HBN0003		31	Screw	PPZ30P100FZK
	7	Case	HNB0088		32	Thermistor(TH901, 902)	CCX1013
	8	Case	HNB0090		33	FET(Q905, 906, 911, 912)	IRFIZ44N
	9	Heat Sink	HNR0112		34	Diode(D907)	FML22S
	10	Bracket	HNS0070		35	Diode(D910)	FML22R
	11	Bracket	HNS0071		36	Transistor(Q907)	2SD2395
	12	End Cap	HNS0072		37	Transistor(Q908)	2SB1566
	13	Spacer	HNV0016		38	FET(Q565, 566)	94-4980
	14	Amp Unit	HWH0099		39	FET(Q567, 568)	94-4981
	15	Screw	BBZ30P060FMC		40	Volume(VR451)	HCS0001
	16	Screw	BMS30P080FMC		41	Variable Resistor(VR101)	CCS1266
	17	Screw(M3×14)	CBA1382		42	Variable Resistor(VR453)	CCS1265
	18	Terminal(CN902)	CKF1059		43	Screw(M3×14)	HBA0017
	19	Fuse(30A)	HEK0030		44	Screw	SMZ50H300FCR
	20	Pin Jack(CN851)	HKB0006				
	21	Fuse Holder	HKE0012				
	22	Terminal(CN901)	HKE0020				
	23	Terminal(CN651)	HKE0021				
	24	Terminal(CN652)	HKE0021				
	25	Clip	HNC0054				

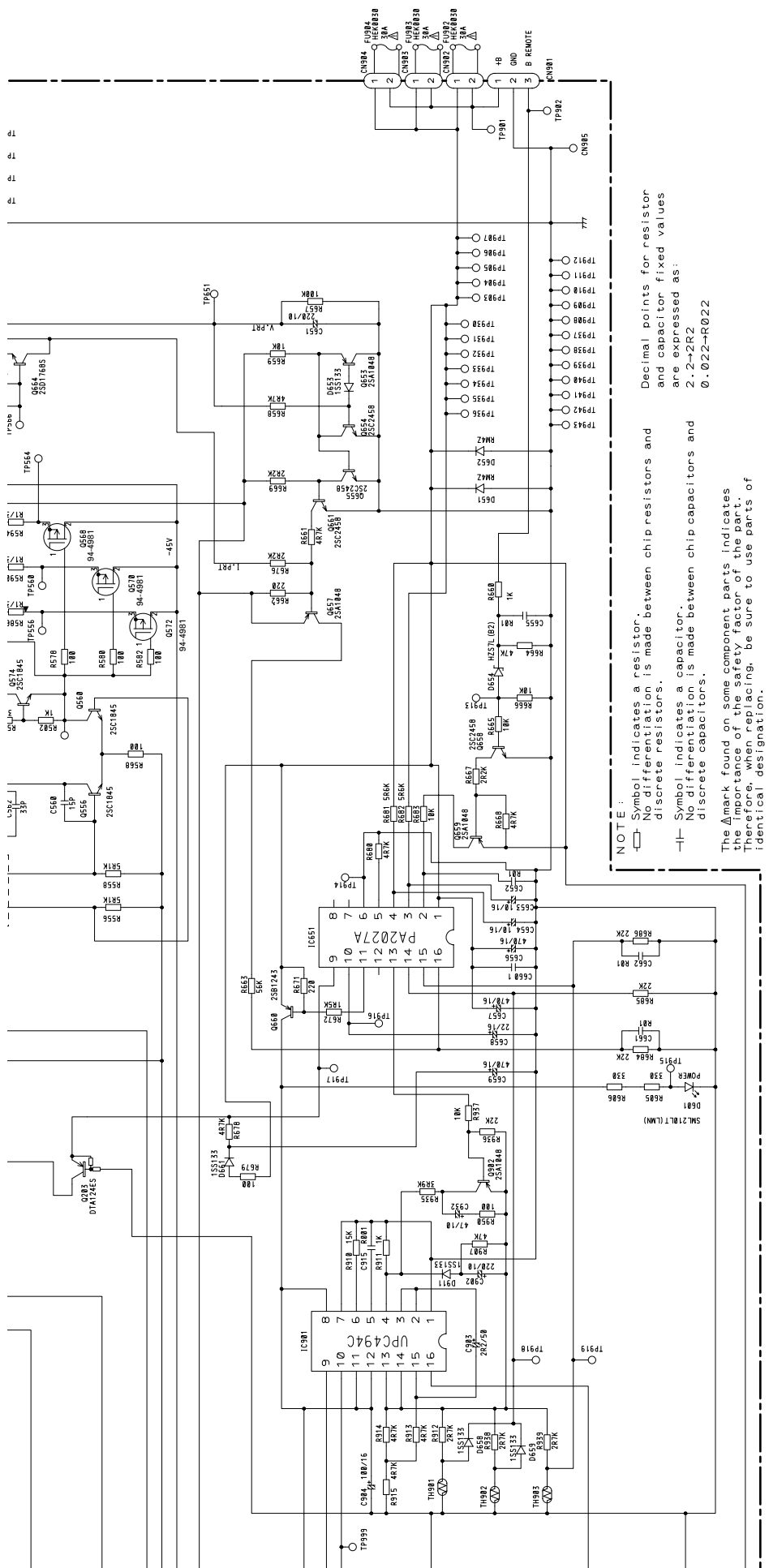


A-b



A-a A-b





NOTE :

- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

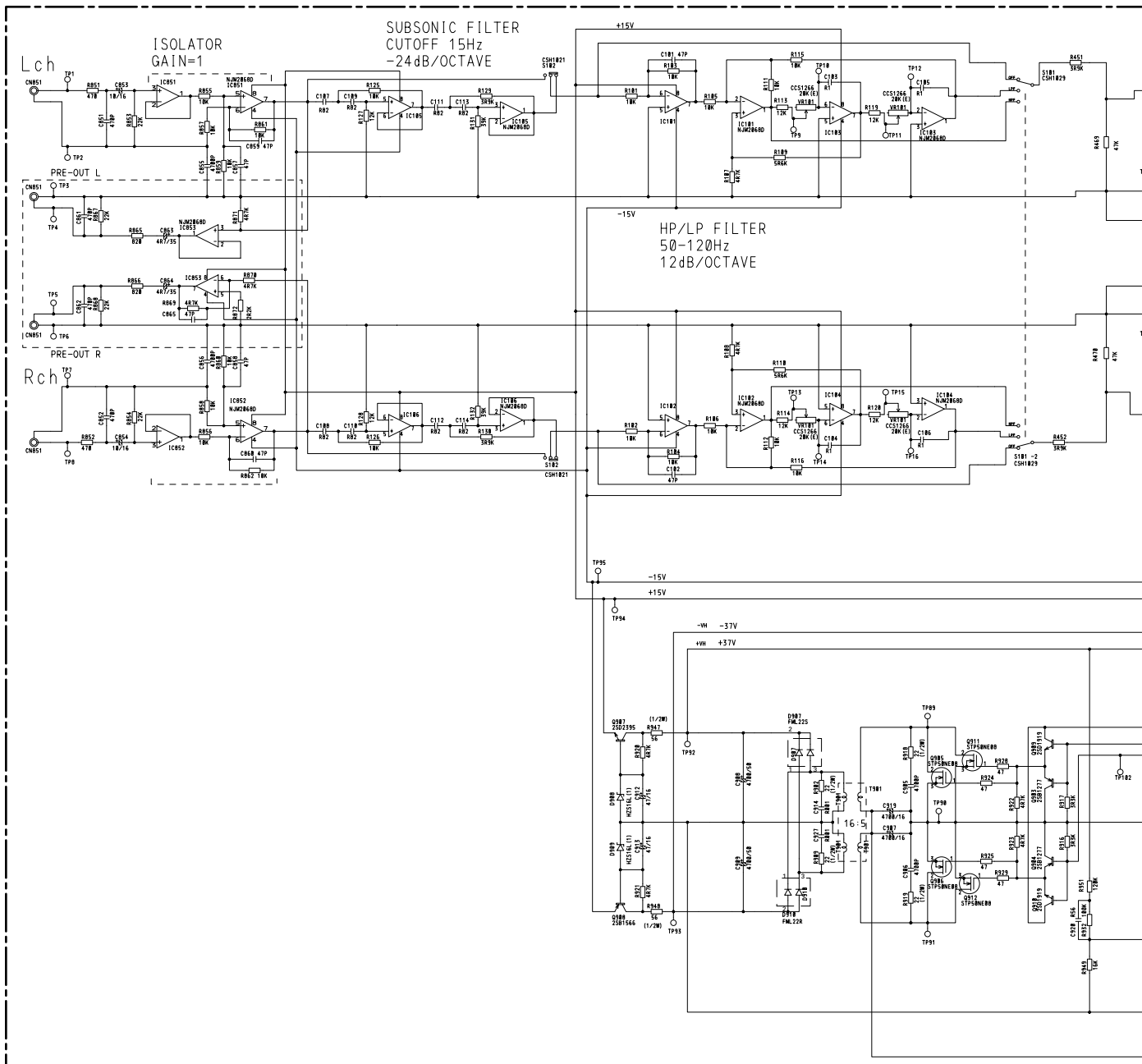
Decimal points for resistor and capacitor fixed values are expressed as:
2.2-2R2
0.022-0R22

A-a A-b

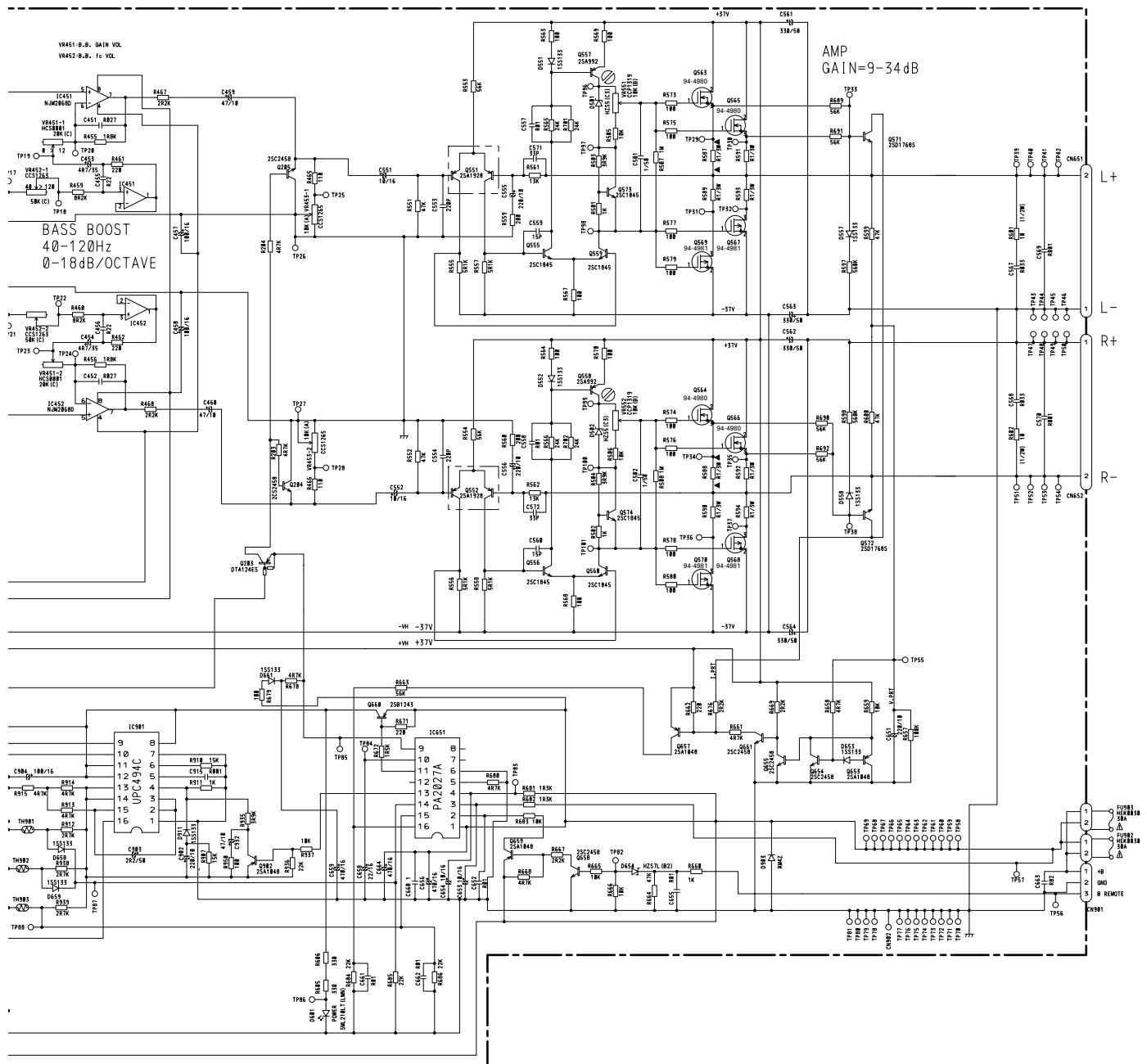
3.2 AMP UNIT(GUIDE PAGE)(PRS-X320/X1R/UC)

A

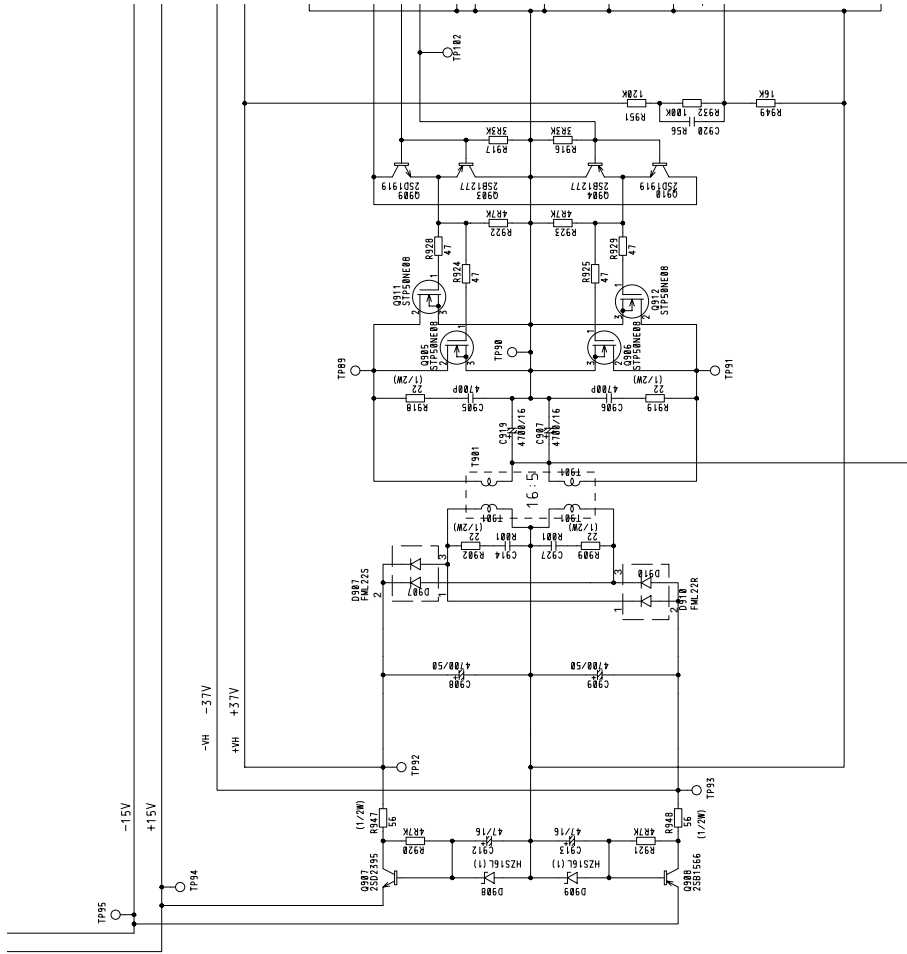
A-a

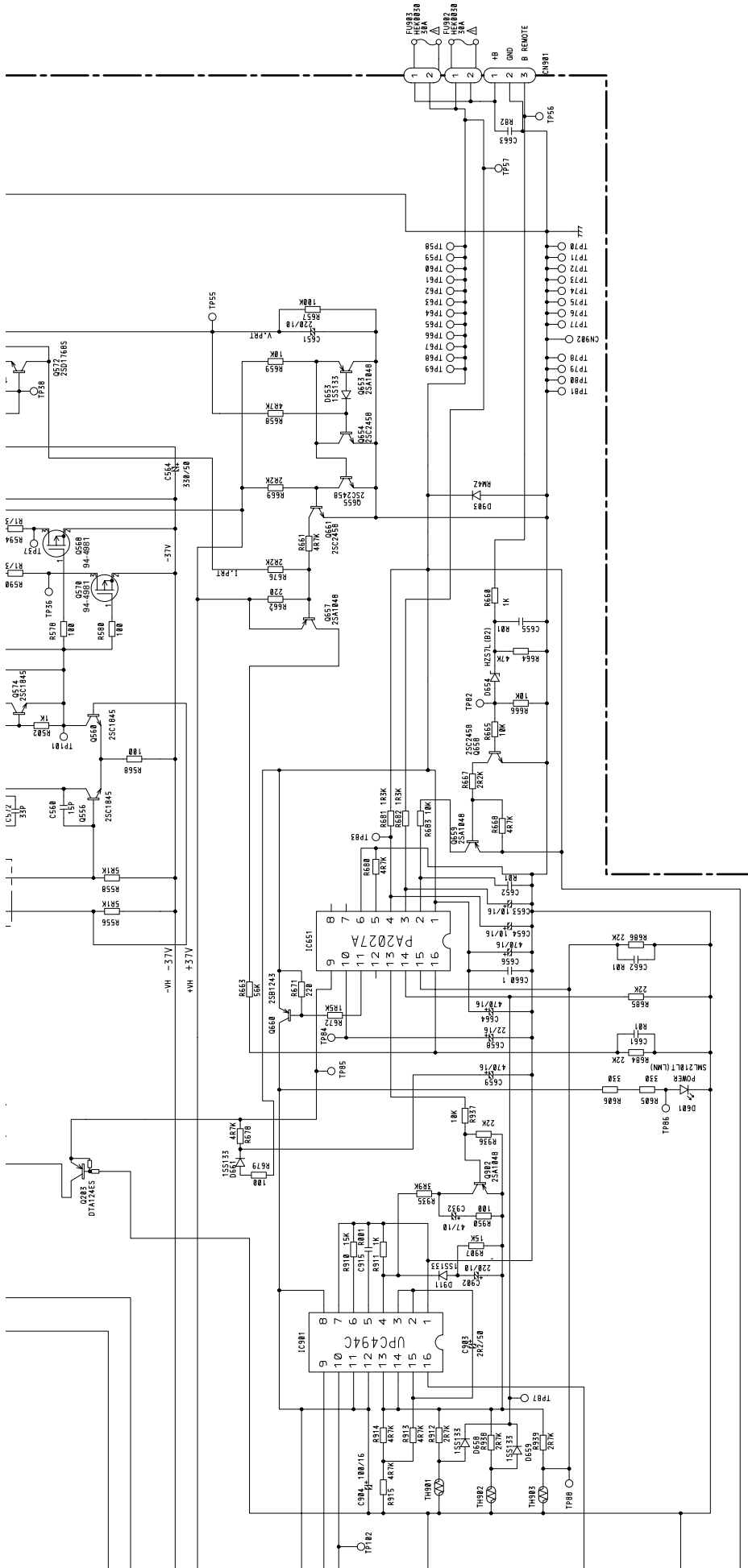


A-b



A-a A-b

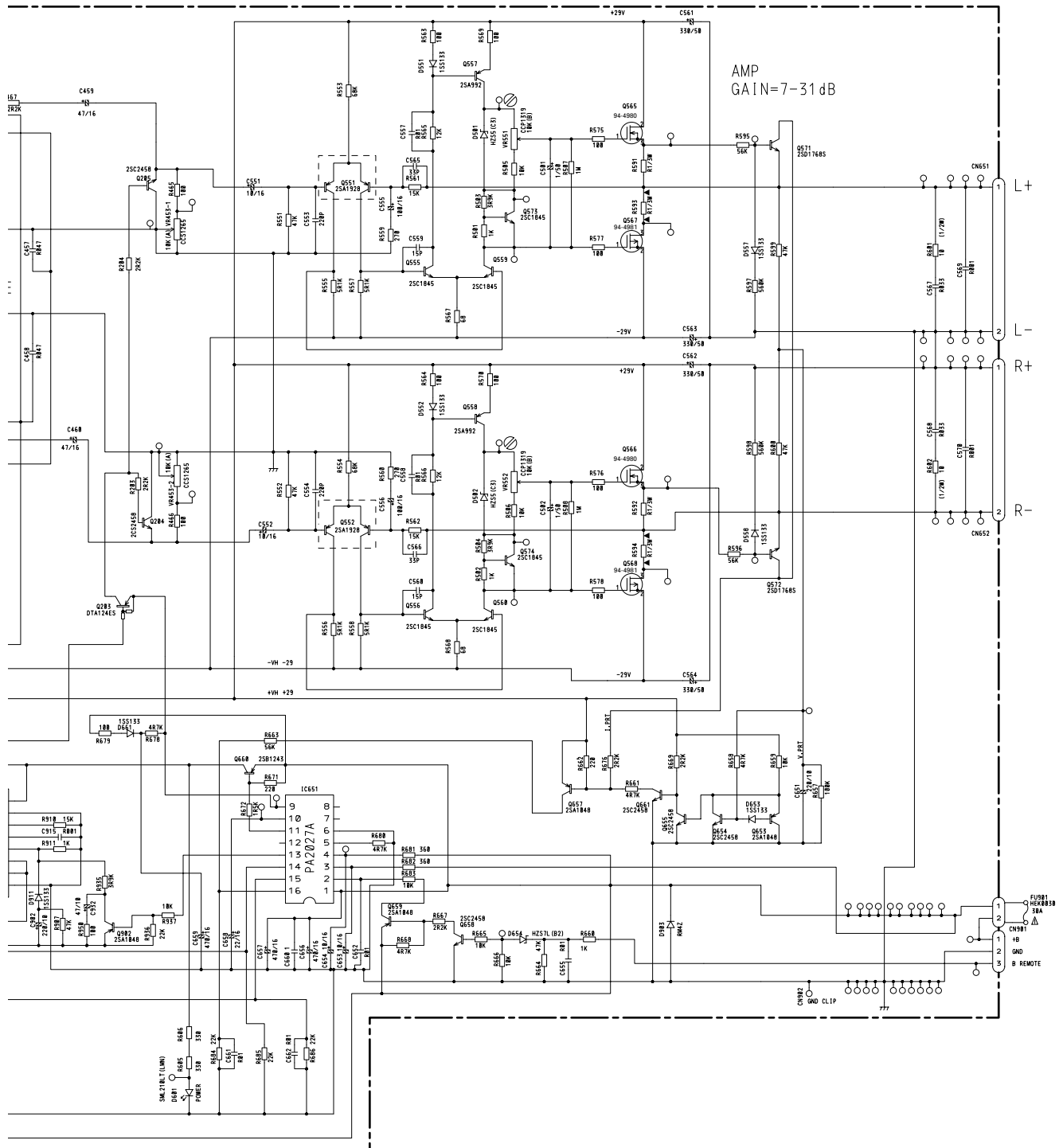




A-a A-b

A-b

A-b



A-a A-b

A-a

A

AMP UNIT

ISOLATOR
GAIN=1

Lch

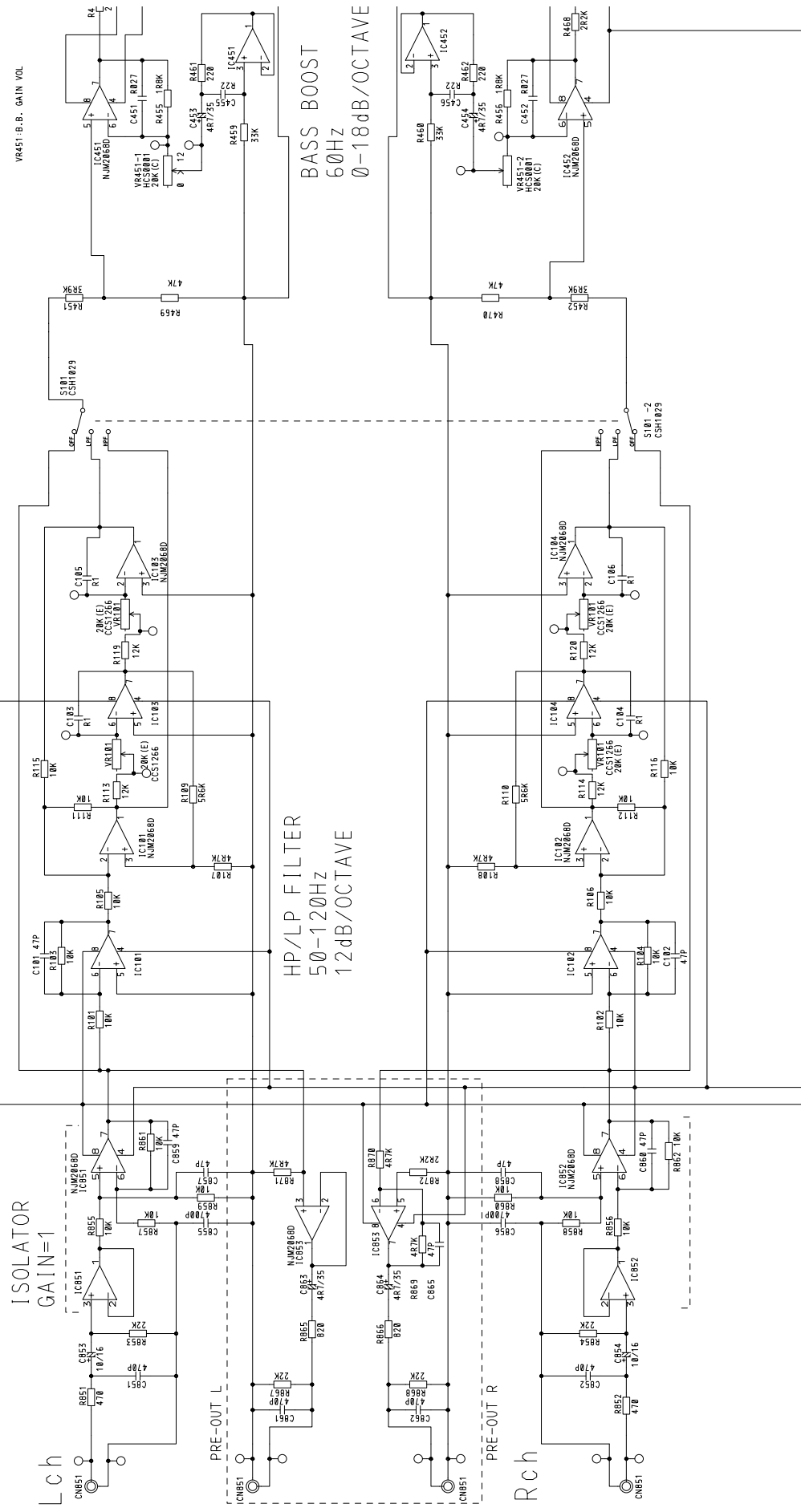
PRE-OUT L

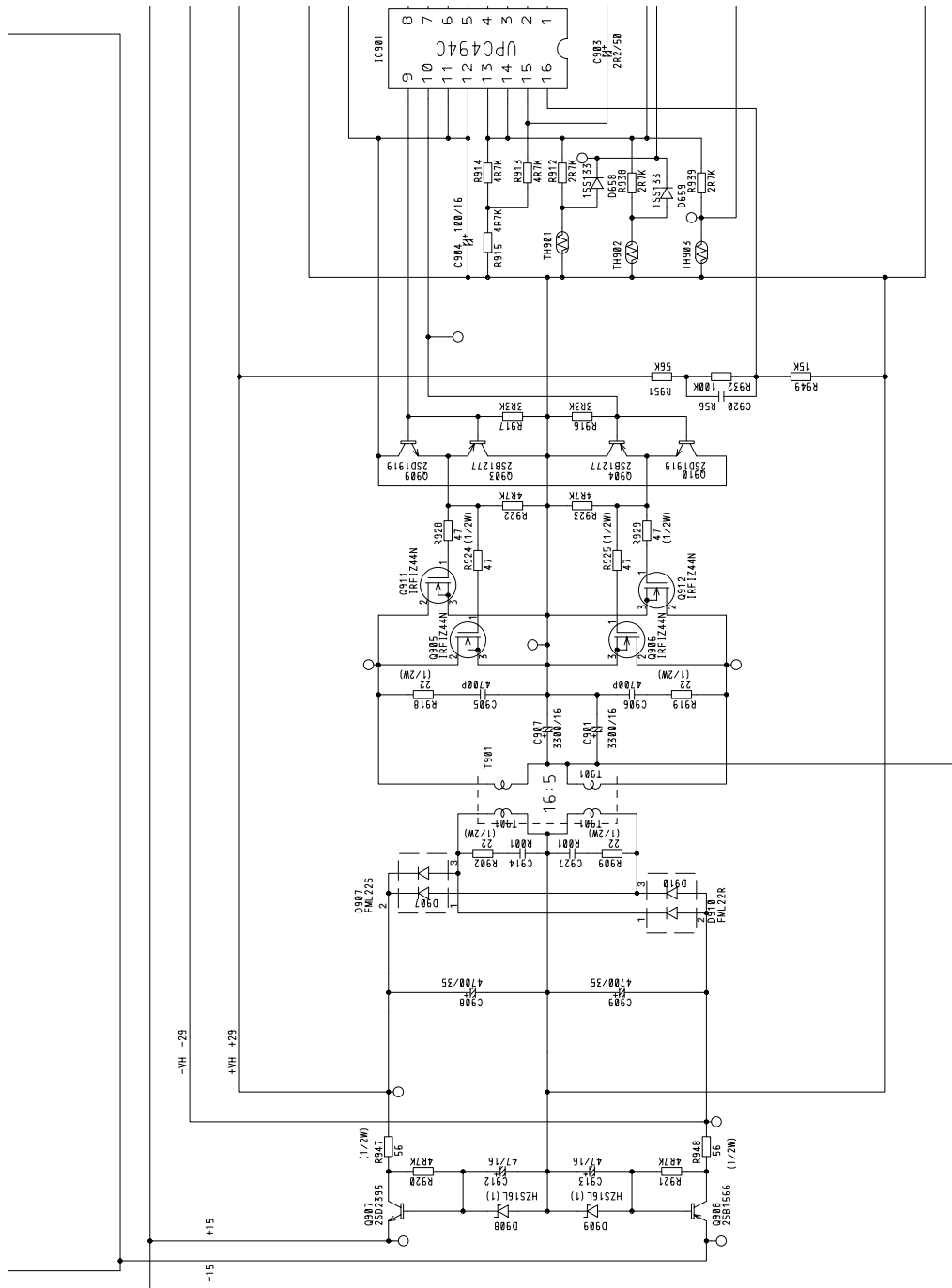
HP/LP FILTER
50-120Hz
12dB/OCTAVE

BASS BOOST
60Hz
0-18dB/OCTAVE

Rch

PRE-OUT R





A-a A-b

A

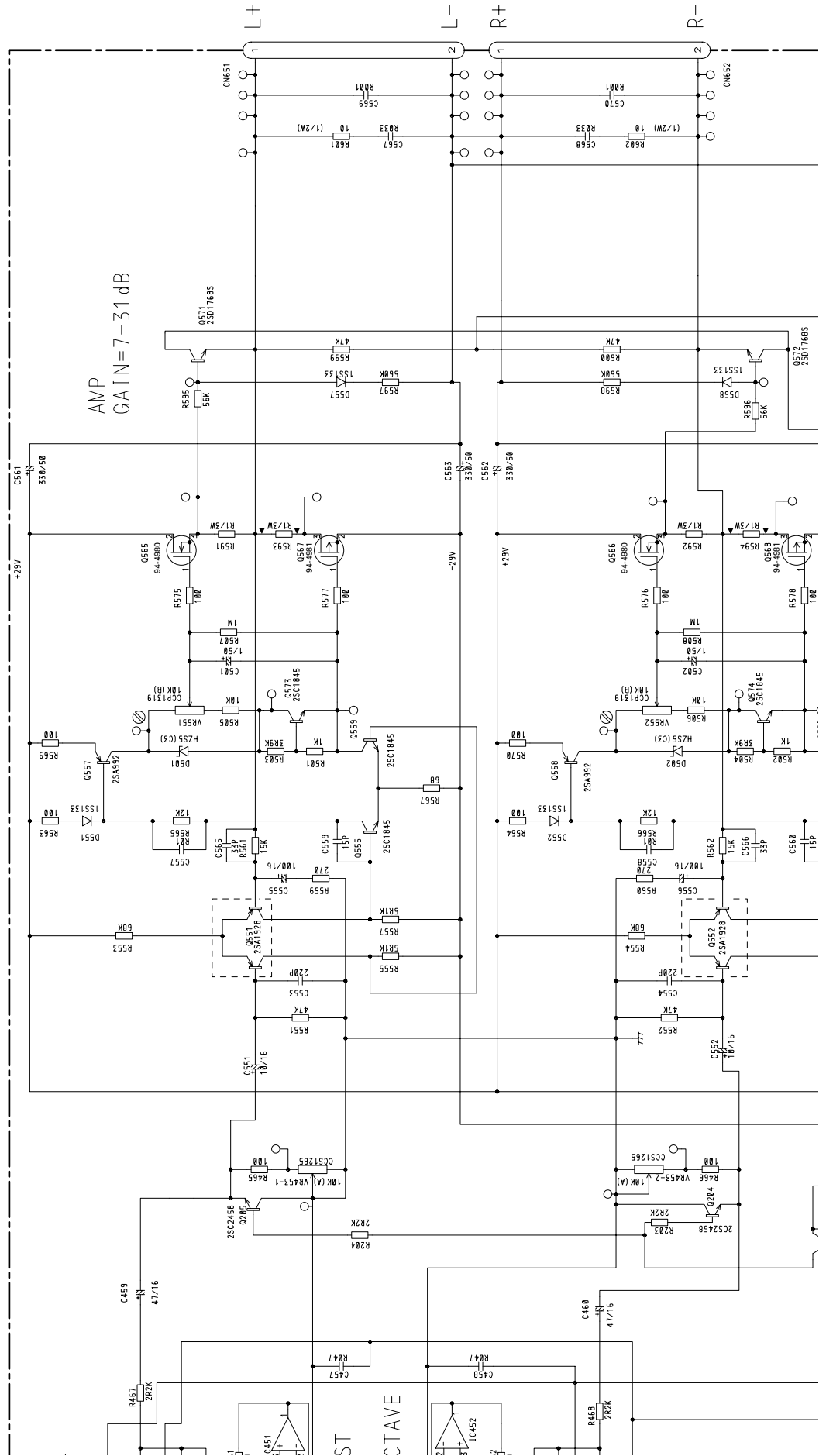
B

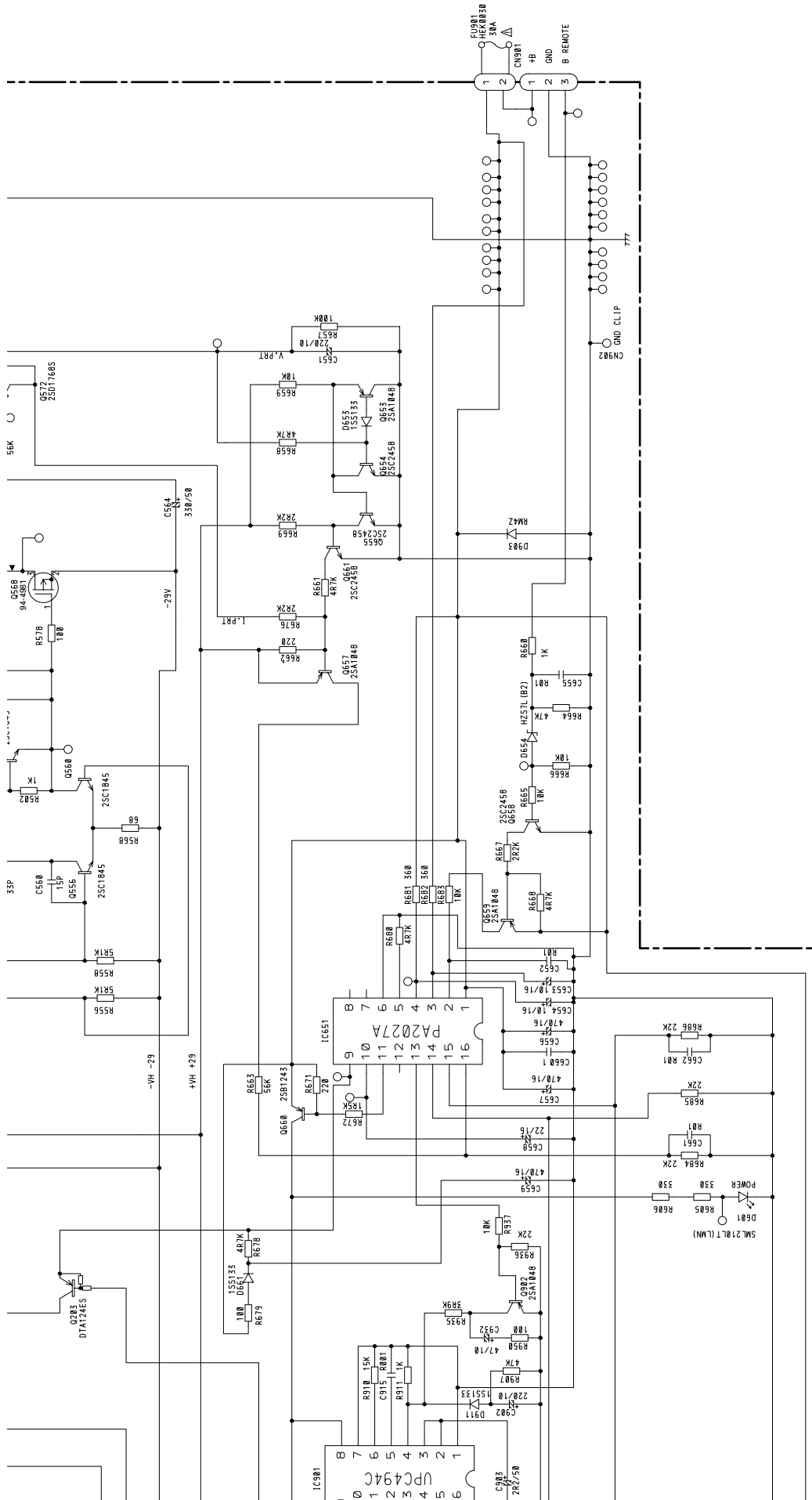
C

D

A-a A-b

A-b





A-a A-b

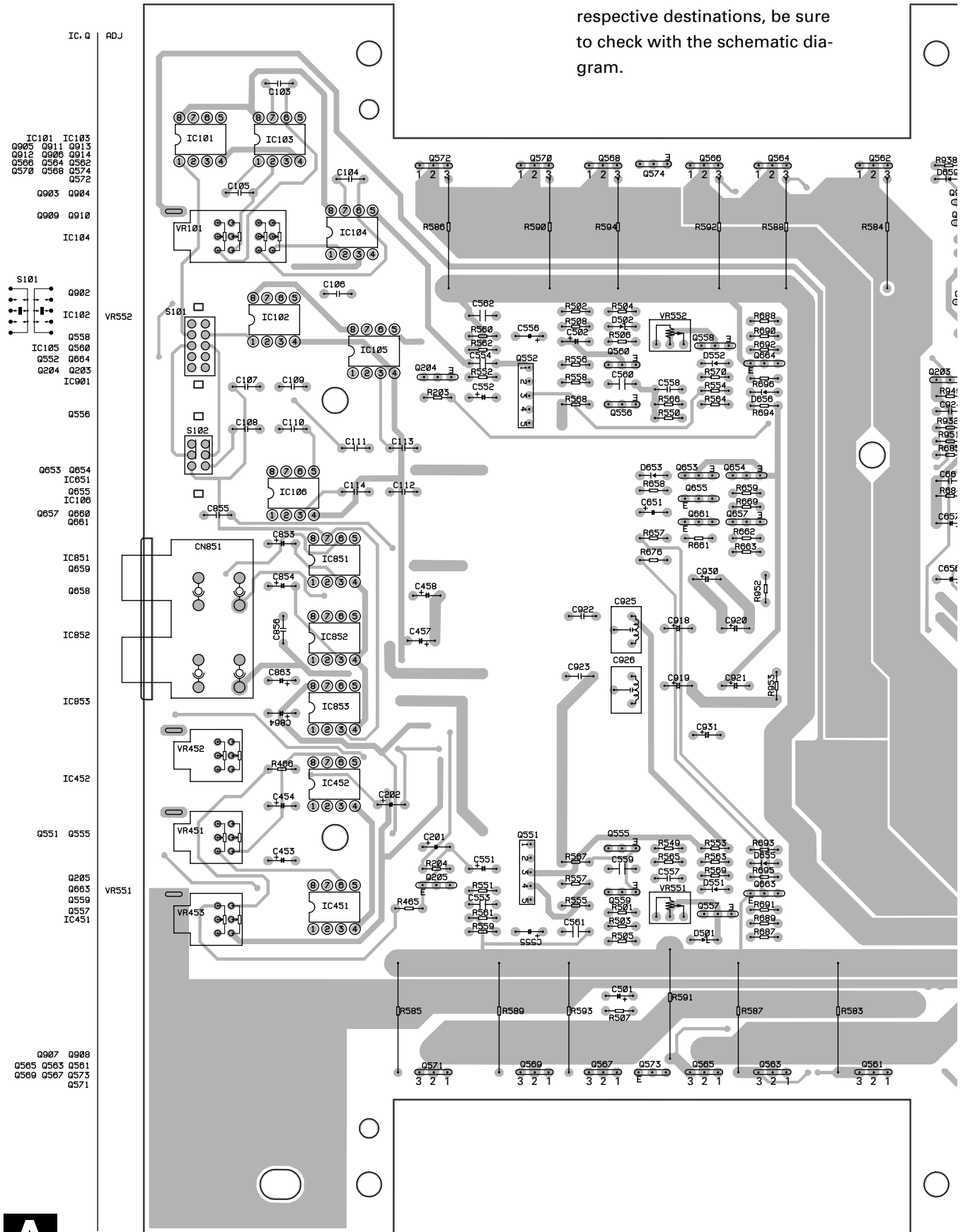
A-b

4. PCB CONNECTION DIAGRAM

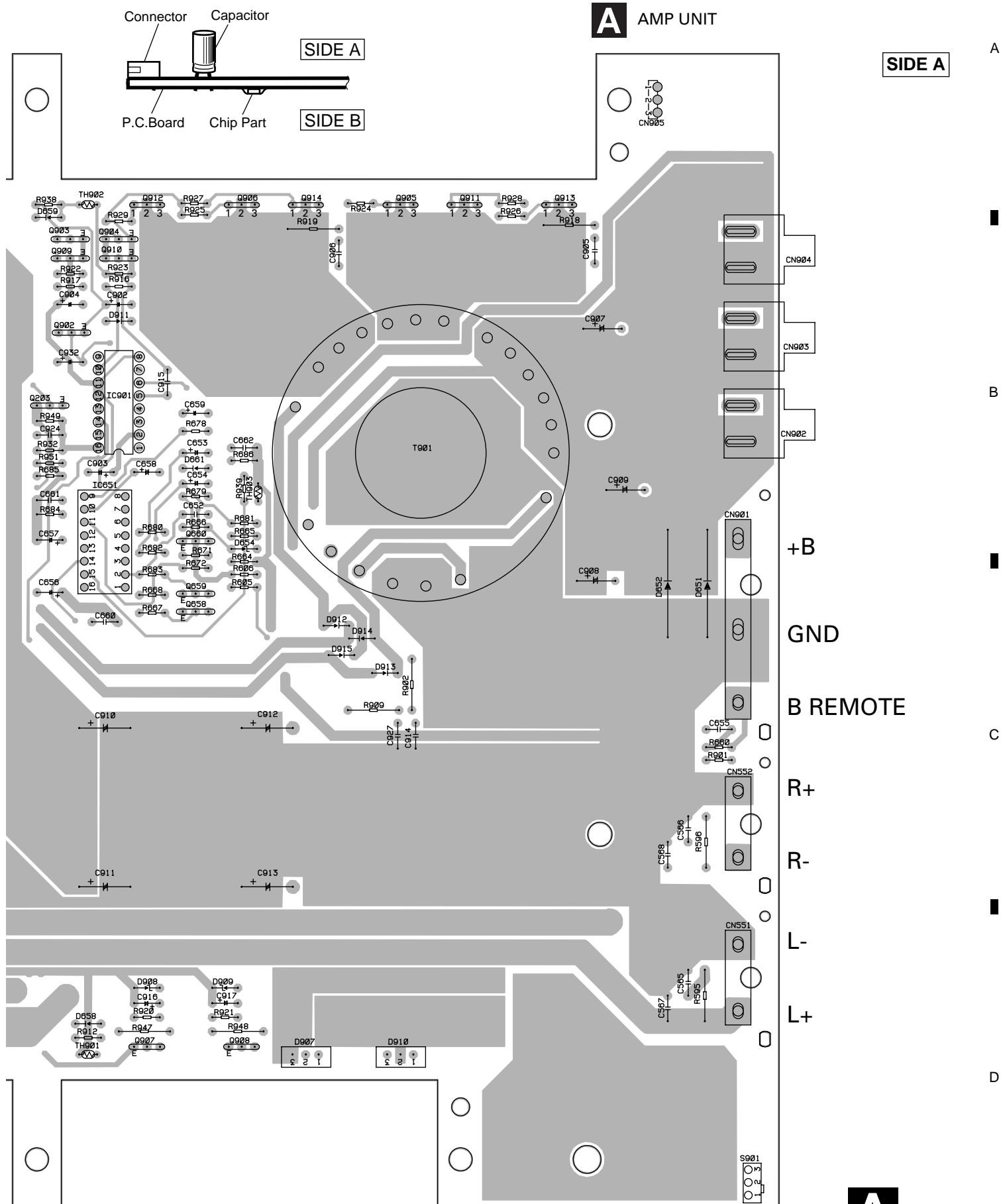
4.1 AMP UNIT(PRS-X720/X1R/UC)

NOTE FOR PCB DIAGRAMS

- The parts mounted on this PCB include all necessary parts for several destination.
- For further information for respective destinations, be sure to check with the schematic diagram.



2. Viewpoint of PCB diagrams



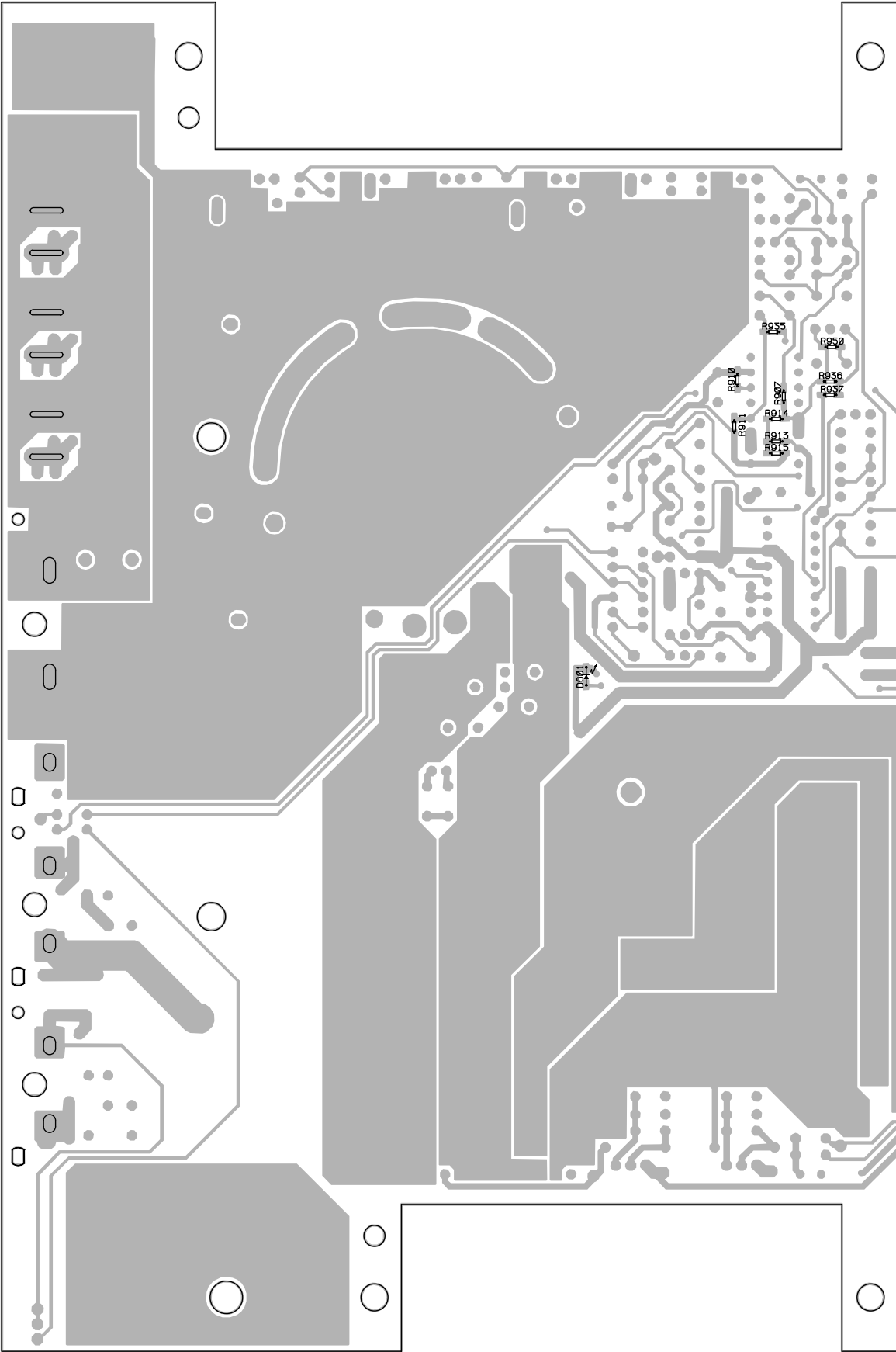
A AMP UNIT

A

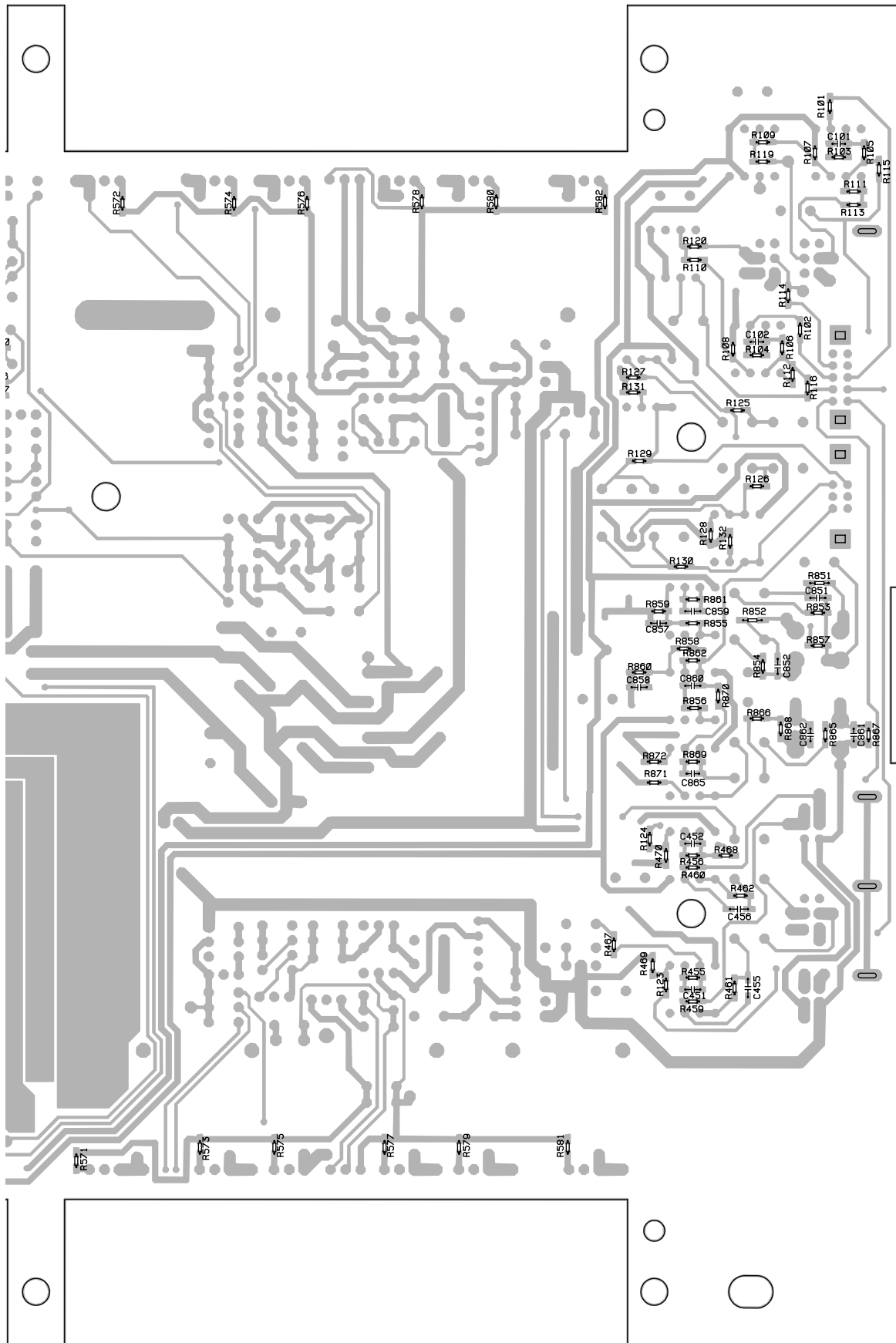
B

C

D



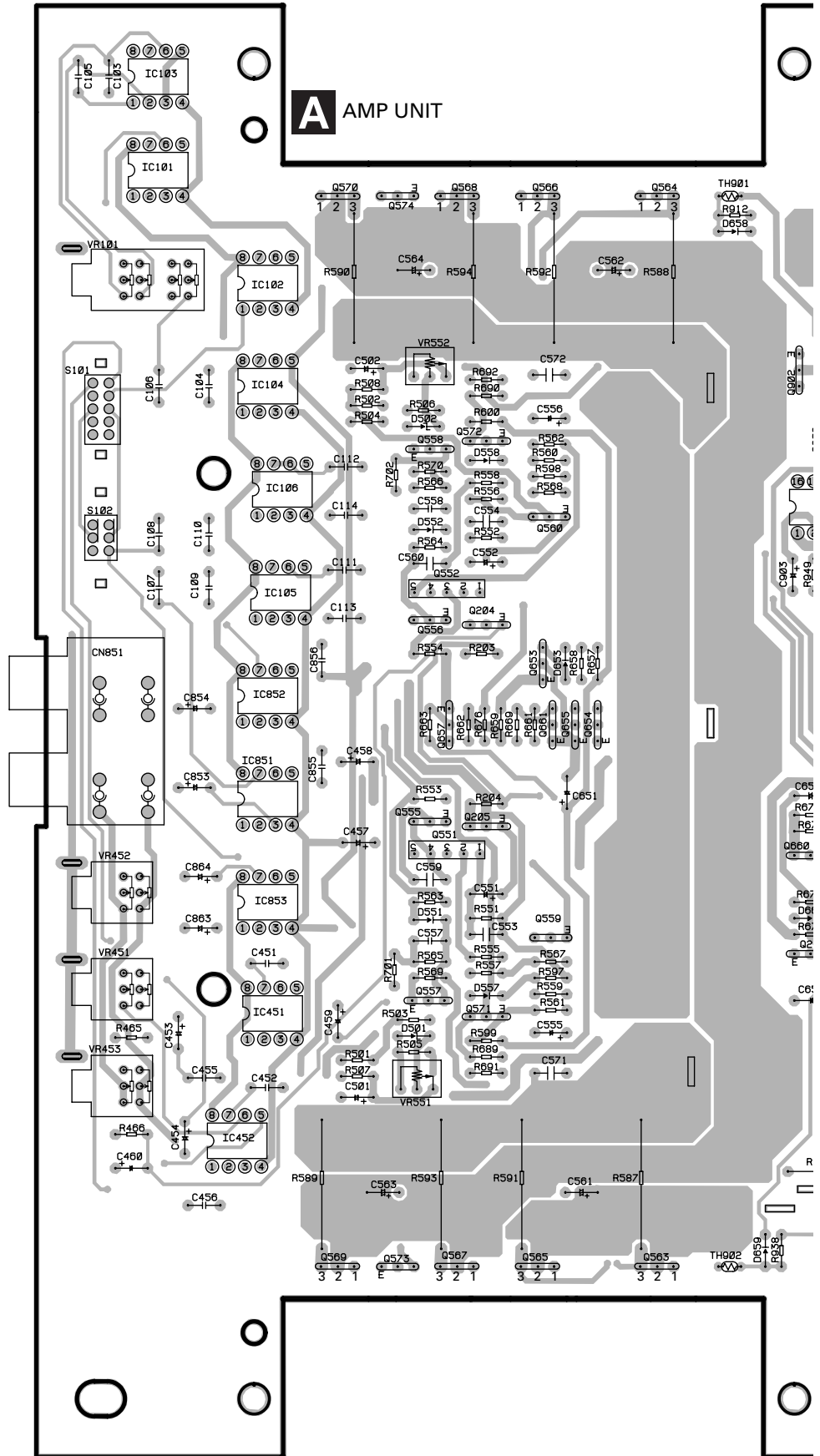
SIDE B



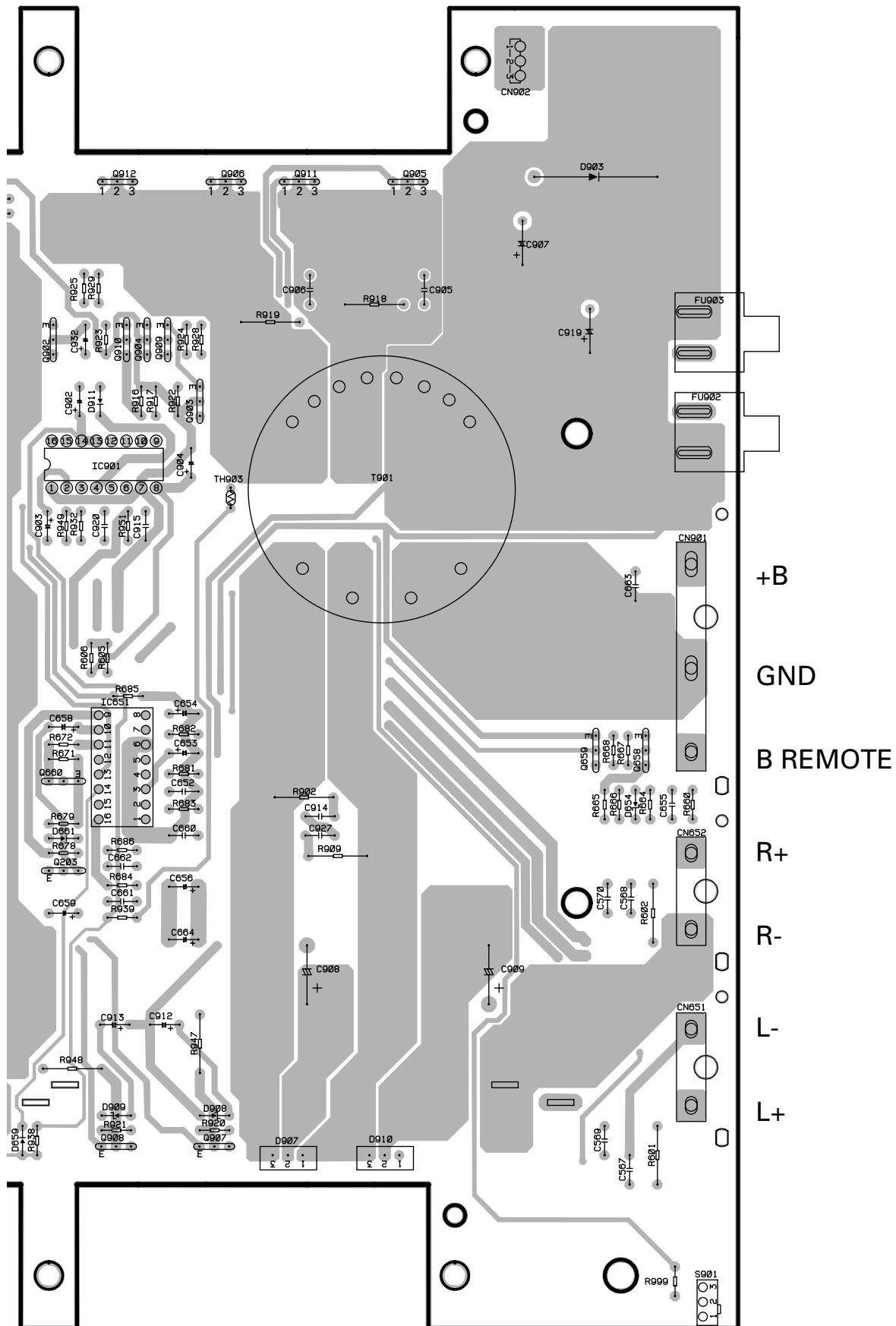
4.2 AMP UNIT(PRS-X320/X1R/UC)

A AMP UNIT

IC, Q	ADJ
IC103	
IC101	
Q906 Q911 Q905 Q566 Q564 Q912 Q574 Q578 Q568	
IC102	
S101	
VR552	
IC104	
Q904 Q909 Q910	
Q558 Q572	
Q903	
Q560 IC106 IC901	
Q552	
IC105	
Q556 Q204	
Q653	
IC852	
Q655 Q654 Q661 Q657 IC851 IC851	
Q555 Q205	
Q659 Q658 Q551 Q660	
IC853	
Q559 Q203	
Q557 IC451	
IC452	
Q908 Q907 Q565 Q563 Q573 Q569 Q567	



A

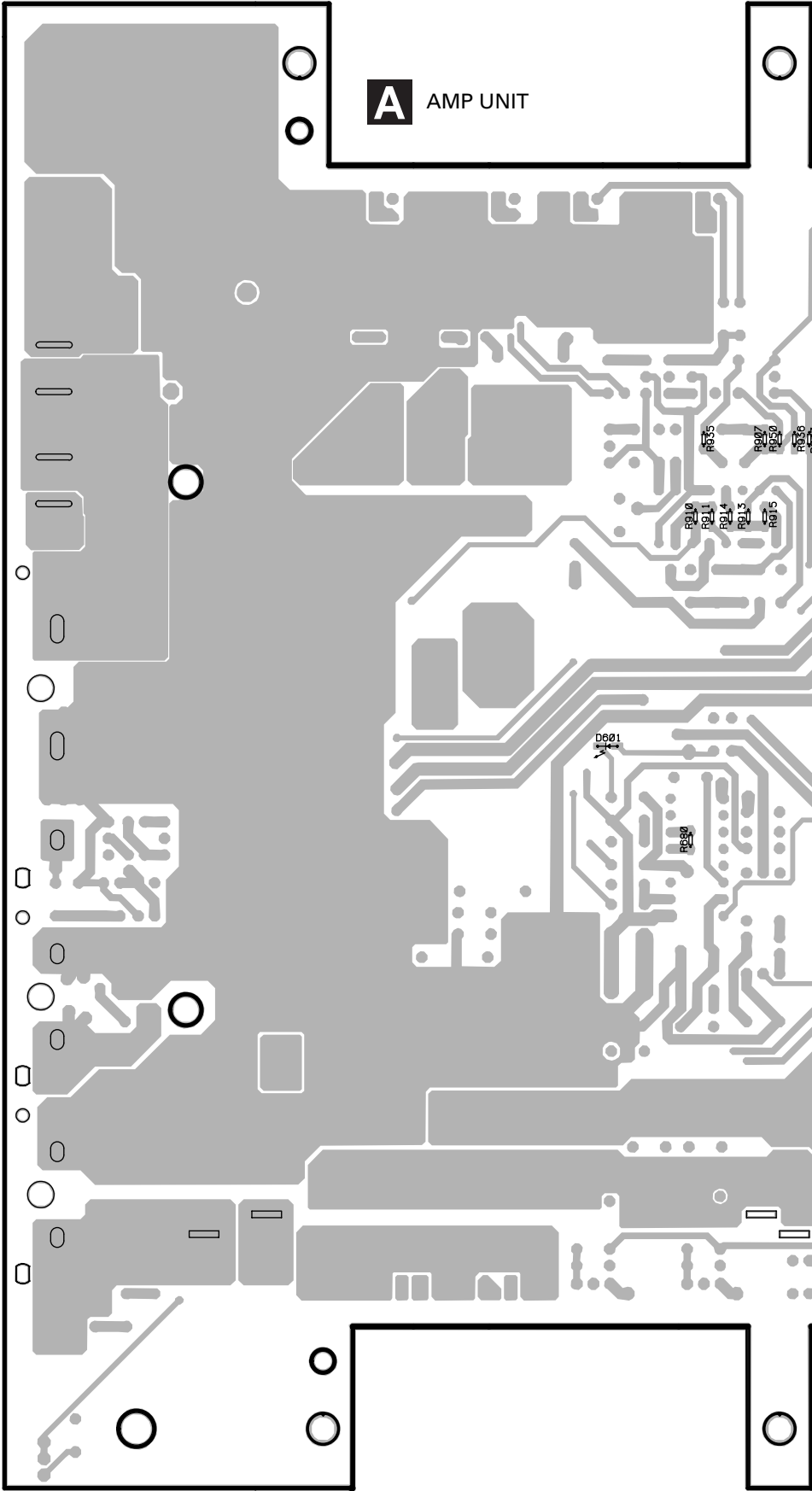


A

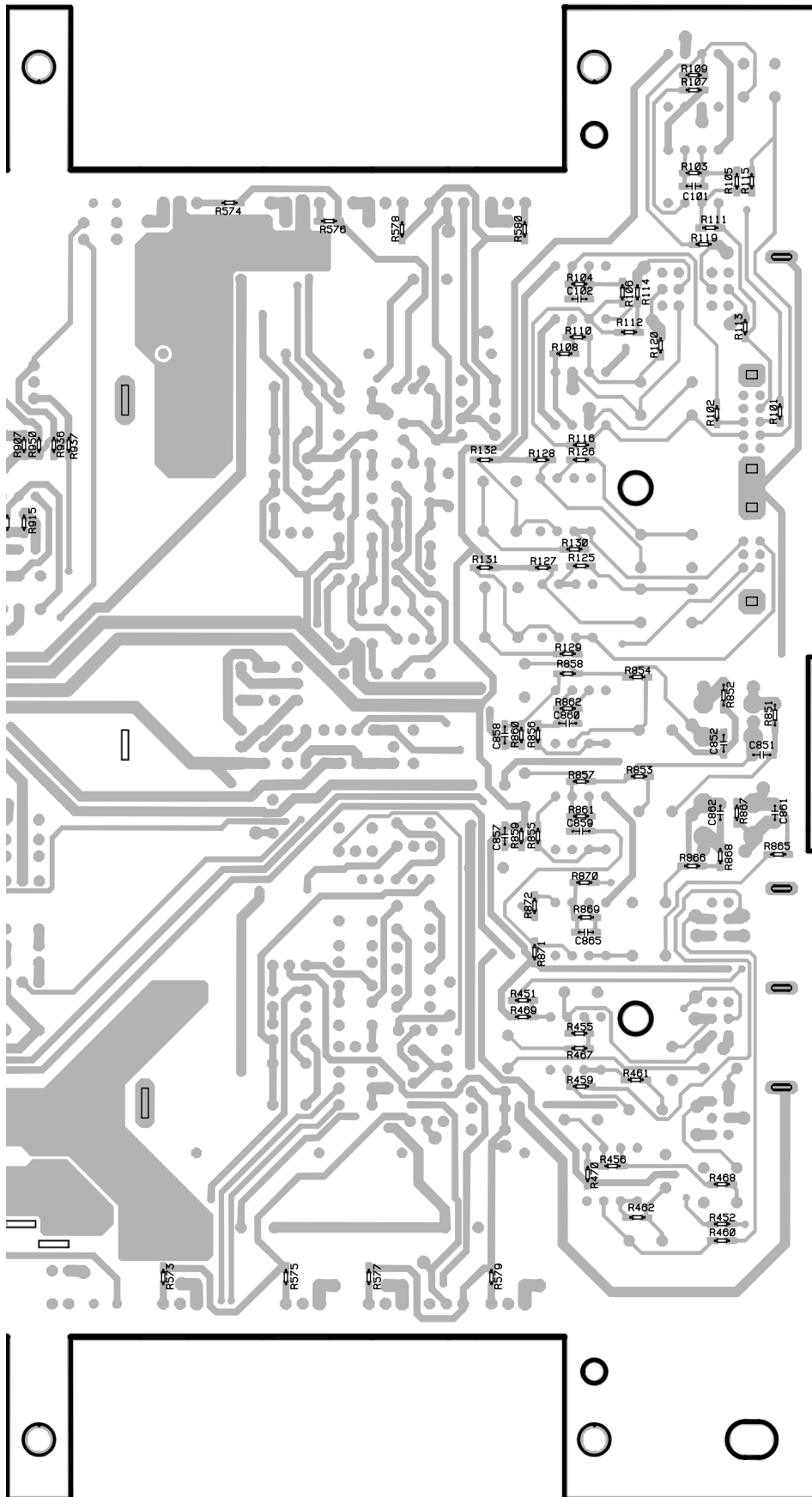
B

C

D



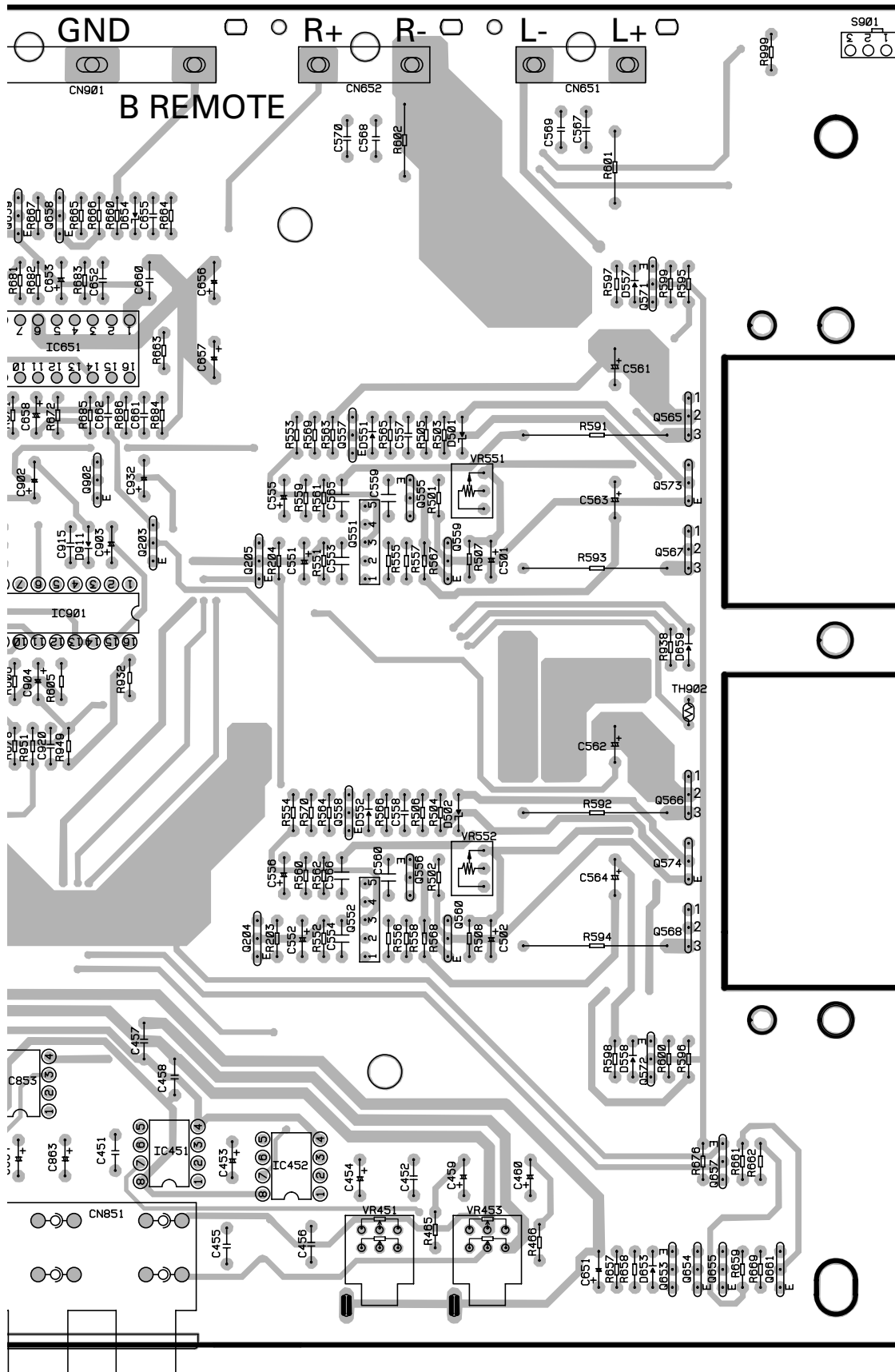
SIDE B



36



SIDE A



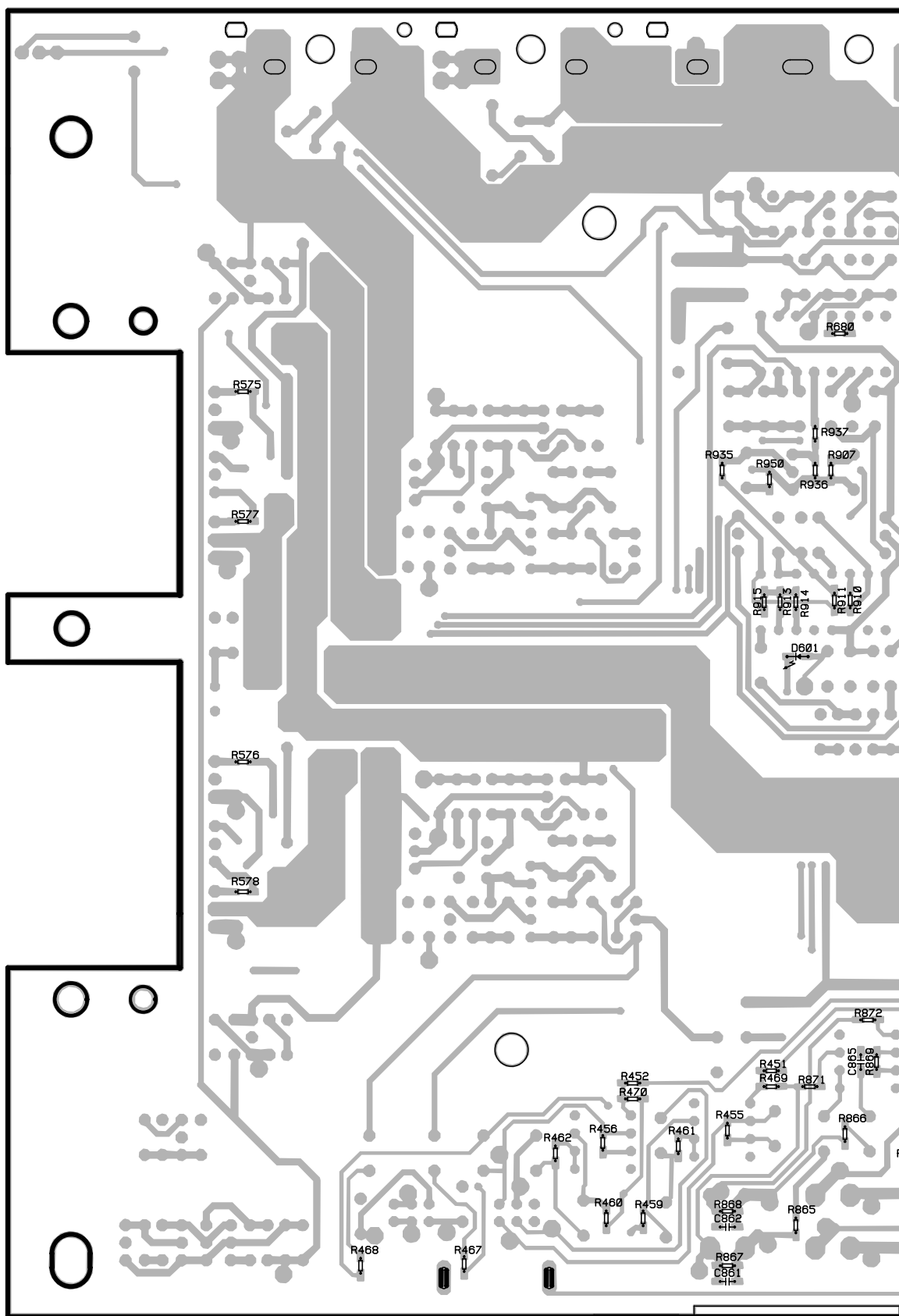
A AMP UNIT

A

B

C

D



5. ELECTRICAL PARTS LIST

NOTES:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○○○○○J,RS1/○○○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
A Unit Number : HWH0091(PRS-X720/X1R/UC)		Q 904 Transistor	2SB1277
Unit Name : Amp Unit		Q 905 FET	STP50NE08
		Q 906 FET	STP50NE08
		Q 907 Transistor	2SD2395
		Q 908 Transistor	2SB1566
MISCELLANEOUS		Q 909 Transistor	2SD1919
IC 101 IC	NJM2068D	Q 910 Transistor	2SD1919
IC 102 IC	NJM2068D	Q 911 FET	STP50NE08
IC 103 IC	NJM2068D	Q 912 FET	STP50NE08
IC 104 IC	NJM2068D	Q 913 FET	STP50NE08
IC 105 IC	NJM2068D		
IC 106 IC	NJM2068D	Q 914 FET	STP50NE08
IC 451 IC	NJM2068D	D 501 Diode	HZS5(C3)
IC 452 IC	NJM2068D	D 502 Diode	HZS5(C3)
IC 651 IC	PA2027A	D 551 Diode	1SS133
IC 851 IC	NJM2068D	D 552 Diode	1SS133
IC 852 IC	NJM2068D	D 601 LED	SML210LT(LMN)
IC 853 IC	NJM2068D	D 651 Diode	RM4Z
IC 901 IC	UPC494C	D 652 Diode	RM4Z
Q 203 Transistor	DTA124ES	D 653 Diode	1SS133
Q 204 Transistor	2SC2458	D 654 Diode	HZS7L(B2)
Q 205 Transistor	2SC2458	D 655 Diode	1SS133
Q 551 Transistor	2SA1928	D 656 Diode	1SS133
Q 552 Transistor	2SA1928	D 658 Diode	1SS133
Q 555 Transistor	2SC1845	D 659 Diode	1SS133
Q 556 Transistor	2SC1845	D 661 Diode	1SS133
Q 557 Transistor	2SA992	D 907 Diode	FML22R
Q 558 Transistor	2SA992	D 908 Diode	HZS16L(1)
Q 559 Transistor	2SC1845	D 909 Diode	HZS16L(1)
Q 560 Transistor	2SC1845	D 910 Diode	FML22S
Q 561 FET	94-4980	D 911 Diode	1SS133
Q 562 FET	94-4980	D 912 Diode	ALO1ZWS
Q 563 FET	94-4980	D 913 Diode	ALO1ZWS
Q 564 FET	94-4980	D 914 Diode	ALO1ZWS
Q 565 FET	94-4980	D 915 Diode	ALO1ZWS
Q 566 FET	94-4980	T 901 Transformer	HTT0003
Q 567 FET	94-4981	TH 901 Thermistor	CCX1013
Q 568 FET	94-4981	TH 902 Thermistor	CCX1013
Q 569 FET	94-4981	TH 903 Thermistor	CCX1035
Q 570 FET	94-4981	S 101 Switch(LPF/HPF)	CSH1029
Q 571 FET	94-4981	S 102 Switch(Subsonic)	CSH1021
Q 572 FET	94-4981	VR 101 Variable Resistor 20kΩ(E)	CCS1266
Q 573 Transistor	2SC1845	VR 451 Volume 20kΩ(C)	HCS0001
Q 574 Transistor	2SC1845	VR 452 Variable Resistor 50kΩ(C)	CCS1263
Q 653 Transistor	2SA1048	VR 453 Variable Resistor 10kΩ(A)	CCS1265
Q 654 Transistor	2SC2458	VR 551 Semi-fixed 10kΩ(B)	CCP1319
Q 655 Transistor	2SC2458	VR 552 Semi-fixed 10kΩ(B)	CCP1319
Q 657 Transistor	2SA1048	FU 902 Fuse 30A	HEK0030
Q 658 Transistor	2SC2458	FU 903 Fuse 30A	HEK0030
Q 659 Transistor	2SA1048	FU 904 Fuse 30A	HEK0030
Q 660 Transistor	2SB1243		
Q 661 Transistor	2SC2458		
Q 663 Transistor	2SD1768S		
Q 664 Transistor	2SD1768S		
Q 902 Transistor	2SA1048		
Q 903 Transistor	2SB1277		

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
RESISTORS			
R 101	RS1/10S103J	R 564	RD1/4PU101J
R 102	RS1/10S103J	R 565	RD1/4PU243J
R 103	RS1/10S103J	R 566	RD1/4PU243J
R 104	RS1/10S103J	R 567	RD1/4PU101J
R 105	RS1/10S103J	R 568	RD1/4PU101J
R 106	RS1/10S103J	R 569	RD1/4PU101J
R 107	RS1/10S472J	R 570	RD1/4PU101J
R 108	RS1/10S472J	R 571	RS1/10S101J
R 109	RS1/10S562J	R 572	RS1/10S101J
R 110	RS1/10S562J	R 573	RS1/10S101J
R 111	RS1/10S103J	R 574	RS1/10S101J
R 112	RS1/10S103J	R 575	RS1/10S101J
R 113	RS1/10S123J	R 576	RS1/10S101J
R 114	RS1/10S123J	R 577	RS1/10S101J
R 115	RS1/10S103J	R 578	RS1/10S101J
R 116	RS1/10S103J	R 579	RS1/10S101J
R 119	RS1/10S123J	R 580	RS1/10S101J
R 120	RS1/10S123J	R 581	RS1/10S101J
R 123	RS1/10S392J	R 582	RS1/10S101J
R 124	RS1/10S392J	R 583	SPR30R1J
R 125	RS1/10S103J	R 584	SPR30R1J
R 126	RS1/10S103J	R 585	SPR30R1J
R 127	RS1/10S123J	R 586	SPR30R1J
R 128	RS1/10S123J	R 587	SPR30R1J
R 129	RS1/10S392J	R 588	SPR30R1J
R 130	RS1/10S392J	R 589	SPR30R1J
R 131	RS1/10S393J	R 590	SPR30R1J
R 132	RS1/10S393J	R 591	SPR30R1J
R 203	RD1/4PU222J	R 592	SPR30R1J
R 204	RD1/4PU222J	R 593	SPR30R1J
R 455	RS1/10S182J	R 594	SPR30R1J
R 456	RS1/10S182J	R 595	RS1/2PMF100J
R 459	RS1/10S822J	R 596	RS1/2PMF100J
R 460	RS1/10S822J	R 605	RD1/4PU331J
R 461	RS1/10S221J	R 606	RD1/4PU331J
R 462	RS1/10S221J	R 657	RD1/4PU104J
R 465	RD1/4PU101J	R 658	RD1/4PU472J
R 466	RD1/4PU101J	R 659	RD1/4PU103J
R 467	RS1/10S222J	R 660	RD1/4PU102J
R 468	RS1/10S222J	R 661	RD1/4PU472J
R 469	RS1/10S473J	R 662	RD1/4PU221J
R 470	RS1/10S473J	R 663	RD1/4PU563J
R 501	RD1/4PU102J	R 664	RD1/4PU473J
R 502	RD1/4PU102J	R 665	RD1/4PU103J
R 503	RD1/4PU392J	R 666	RD1/4PU103J
R 504	RD1/4PU392J	R 667	RD1/4PU222J
R 505	RD1/4PU103J	R 668	RD1/4PU472J
R 506	RD1/4PU103J	R 669	RD1/4PU222J
R 507	RD1/4PU105J	R 671	RD1/4PU221J
R 508	RD1/4PU105J	R 672	RD1/4PU152J
R 549	RD1/4PU243J	R 676	RD1/4PU222J
R 550	RD1/4PU243J	R 678	RD1/4PU472J
R 551	RD1/4PU473J	R 679	RD1/4PU101J
R 552	RD1/4PU473J	R 680	RD1/4PU472J
R 553	RD1/4PU563J	R 681	RD1/4PU562J
R 554	RD1/4PU563J	R 682	RD1/4PU562J
R 555	RD1/4PU512J	R 683	RD1/4PU103J
R 556	RD1/4PU512J	R 684	RD1/4PU223J
R 557	RD1/4PU512J	R 685	RD1/4PU223J
R 558	RD1/4PU512J	R 686	RD1/4PU223J
R 559	RD1/4PU131J	R 687	RD1/4PU563J
R 560	RD1/4PU131J	R 688	RD1/4PU563J
R 561	RD1/4PU133J	R 689	RD1/4PU563J
R 562	RD1/4PU133J	R 690	RD1/4PU563J
R 563	RD1/4PU101J	R 691	RD1/4PU563J

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
R 692	RD1/4PU563J	C 106	CFTNA104J50
R 693	RD1/4PU564J	C 107	CFTLA824J50
R 694	RD1/4PU564J	C 108	CFTLA824J50
R 695	RD1/4PU473J	C 109	CFTLA824J50
R 696	RD1/4PU473J	C 110	CFTLA824J50
R 851	RS1/10S471J	C 111	CFTLA824J50
R 852	RS1/10S471J	C 112	CFTLA824J50
R 853	RS1/10S223J	C 113	CFTLA824J50
R 854	RS1/10S223J	C 114	CFTLA824J50
R 855 (RN1/10SE1002D)	GGC1320	C 201	CEAS470M10
R 856 (RN1/10SE1002D)	GGC1320	C 202	CEAS470M10
R 857 (RN1/10SE1002D)	GGC1320	C 451	CKSQYB273K25
R 858 (RN1/10SE1002D)	GGC1320	C 452	CKSQYB273K25
R 859 (RN1/10SE1002D)	GGC1320	C 453	CEAS4R7M35
R 860 (RN1/10SE1002D)	GGC1320	C 454	CEAS4R7M35
R 861 (RN1/10SE1002D)	GGC1320	C 455	CKSYB224K25
R 862 (RN1/10SE1002D)	GGC1320	C 456	CKSYB224K25
R 865	RS1/10S821J	C 457	CEAS101M16
R 866	RS1/10S821J	C 458	CEAS101M16
R 867	RS1/10S223J	C 501	CEAS1R0M50
R 868	RS1/10S223J	C 502	CEAS1R0M50
R 869	RS1/10S472J	C 551	CEAS100M16
R 870	RS1/10S472J	C 552	CEAS100M16
R 871	RS1/10S472J	C 553	CKPUYB221K50
R 872	RS1/10S222J	C 554	CKPUYB221K50
R 902	RS1/2PMF220J	C 555	CEAS221M10
R 907	RS1/10S473J	C 556	CEAS221M10
R 909	RS1/2PMF220J	C 557	CFTLA103J50
R 910	RS1/10S153J	C 558	CFTLA103J50
R 911	RS1/10S102J	C 559	CCPUCH150J50
R 912	RD1/4PU272J	C 560	CCPUCH150J50
R 913	RS1/10S472J	C 561	CMA330J2H
R 914	RS1/10S472J	C 562	CMA330J2H
R 915	RS1/10S472J	C 565	CFTNA333J50
R 916	RD1/4PU332J	C 566	CFTNA333J50
R 917	RD1/4PU332J	C 567	CQMA102J50
R 918	RS1/2PMF220J	C 568	CQMA102J50
R 919	RS1/2PMF220J	C 651	CCH1036
R 920	RD1/4PU472J	C 652	CFTLA103J50
R 921	RD1/4PU472J	C 653	CEAS100M16
R 922	RD1/4PU472J	C 654	CEAS100M16
R 923	RD1/4PU472J	C 655	CFTLA103J50
R 924	RD1/4PU680J	C 656	CCH1183
R 925	RD1/4PU680J	C 657	CCH1183
R 926	RD1/4PU680J	C 658	CEAS220M16
R 927	RD1/4PU680J	C 659	CCH1183
R 928	RD1/4PU680J	C 660	CFTLA105J50
R 929	RD1/4PU680J	C 661	CFTLA103J50
R 932	RD1/4PU104J	C 662	CFTLA103J50
R 935	RS1/10S392J	C 851	CKSQYB471K50
R 936	RS1/10S223J	C 852	CKSQYB471K50
R 937	RS1/10S103J	C 853	CEAS100M16
R 938	RD1/4PU272J	C 854	CEAS100M16
R 939	RD1/4PU272J	C 855	CQMA472J50
R 947	RS1/2PMF560J	C 856	CQMA472J50
R 948	RS1/2PMF560J	C 857	CCSQCH470J50
R 949	RD1/4PU113J	C 858	CCSQCH470J50
R 950	RS1/10S101J	C 859	CCSQCH470J50
R 951	RD1/4PU823J	C 860	CCSQCH470J50
R 952	RD1/4PU101J	C 861	CKSQYB471K50
R 953	RD1/4PU101J	C 862	CKSQYB471K50
		C 863	CEAS4R7M35
		C 864	CEAS4R7M35
		C 865	CCSQCH470J50
		C 902	CEAS221M10
CAPACITORS			
C 101	CCSQCH470J50		
C 102	CCSQCH470J50		
C 103	CFTNA104J50		
C 104	CFTNA104J50		
C 105	CFTNA104J50		

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
C 903	CEAS2R2M50	Q 574	Transistor
C 904	CEAS101M16	Q 653	Transistor
C 905	CQMA472J50	Q 654	Transistor
C 906	CQMA472J50	Q 655	Transistor
C 907	CCH1310	Q 657	Transistor
C 908	4700μF/16V	Q 658	Transistor
C 909	4700μF/16V	Q 659	Transistor
C 910	478LBA050M2DC	Q 660	Transistor
C 911	478LBA050M2DC	Q 661	Transistor
C 912	478LBA050M2DC	Q 902	Transistor
C 913	478LBA050M2DC	Q 903	Transistor
C 914	CQMA102J50	Q 904	Transistor
C 915	CQMA102J50	Q 905	FET
C 916	CEAS470M16	Q 906	FET
C 917	CEAS470M16	Q 907	Transistor
C 918	337RZM050M1020	Q 908	Transistor
C 919	337RZM050M1020	Q 909	Transistor
C 920	337RZM050M1020	Q 910	Transistor
C 921	337RZM050M1020	Q 911	FET
C 922	CFTLA224J50	Q 912	FET
C 923	CFTLA224J50	D 501	Diode
C 924	CFTLA564J50	D 502	Diode
C 925	CCG-081	D 551	Diode
C 926	CCG-081	D 552	Diode
C 927	CQMA102J50	D 557	Diode
C 930	337RZM050M1020	D 558	Diode
C 931	337RZM050M1020	D 601	LED
C 932	CEAS470M10	D 653	Diode
		D 654	Diode
		D 658	Diode
		D 659	Diode
		D 661	Diode
		D 903	Diode
		D 907	Diode
		D 908	Diode
		D 909	Diode
		D 910	Diode
		D 911	Diode
		T 901	Transformer
		TH 901	Thermistor
		TH 902	Thermistor
		TH 903	Thermistor
		S 101	Switch(LPF/HPF)
		S 102	Switch(Subsonic)
		VR 101	Variable Resistor 20kΩ(E)
		VR 451	Volume 20kΩ(C)
		VR 452	Variable Resistor 50kΩ(C)
		VR 453	Variable Resistor 10kΩ(A)
		VR 551	Semi-fixed 10kΩ(B)
		VR 552	Semi-fixed 10kΩ(B)
		FU 902	Fuse 30A
		FU 903	Fuse 30A
			RESISTORS
		R 101	RS1/10S103J
		R 102	RS1/10S103J
		R 103	RS1/10S103J
		R 104	RS1/10S103J
		R 105	RS1/10S103J
		R 106	RS1/10S103J
		R 107	RS1/10S472J
		R 108	RS1/10S472J
		R 109	RS1/10S562J
		R 110	RS1/10S562J

A Unit Number : HWH0095(PRS-X320/X1R/UC)
Unit Name : Amp Unit

MISCELLANEOUS

IC 101	IC	NJM2068D
IC 102	IC	NJM2068D
IC 103	IC	NJM2068D
IC 104	IC	NJM2068D
IC 105	IC	NJM2068D
IC 106	IC	NJM2068D
IC 451	IC	NJM2068D
IC 452	IC	NJM2068D
IC 651	IC	PA2027A
IC 851	IC	NJM2068D
IC 852	IC	NJM2068D
IC 853	IC	NJM2068D
IC 901	IC	UPC494C
Q 203	Transistor	DTA124ES
Q 204	Transistor	2SC2458
Q 205	Transistor	2SC2458
Q 551	Transistor	2SA1928
Q 552	Transistor	2SA1928
Q 555	Transistor	2SC1845
Q 556	Transistor	2SC1845
Q 557	Transistor	2SA992
Q 558	Transistor	2SA992
Q 559	Transistor	2SC1845
Q 560	Transistor	2SC1845
Q 563	FET	94-4980
Q 564	FET	94-4980
Q 565	FET	94-4980
Q 566	FET	94-4980
Q 567	FET	94-4981
Q 568	FET	94-4981
Q 569	FET	94-4981
Q 570	FET	94-4981
Q 571	Transistor	2SD1768S
Q 572	Transistor	2SD1768S
Q 573	Transistor	2SC1845

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
R 111	RS1/10S103J	R 578	RS1/10S101J
R 112	RS1/10S103J	R 579	RS1/10S101J
R 113	RS1/10S123J	R 580	RS1/10S101J
R 114	RS1/10S123J	R 587	SPR30R1J
R 115	RS1/10S103J	R 588	SPR30R1J
R 116	RS1/10S103J	R 589	SPR30R1J
R 119	RS1/10S123J	R 590	SPR30R1J
R 120	RS1/10S123J	R 591	SPR30R1J
R 125	RS1/10S103J	R 592	SPR30R1J
R 126	RS1/10S103J	R 593	SPR30R1J
R 127	RS1/10S123J	R 594	SPR30R1J
R 128	RS1/10S123J	R 597	RD1/4PU564J
R 129	RS1/10S392J	R 598	RD1/4PU564J
R 130	RS1/10S392J	R 599	RD1/4PU473J
R 131	RS1/10S393J	R 600	RD1/4PU473J
R 132	RS1/10S393J	R 601	RS1/2PMF100J
R 203	RD1/4PU472J	R 602	RS1/2PMF100J
R 204	RD1/4PU472J	R 605	RD1/4PU331J
R 451	RS1/10S392J	R 606	RD1/4PU331J
R 452	RS1/10S392J	R 657	RD1/4PU104J
R 455	RS1/10S182J	R 658	RD1/4PU472J
R 456	RS1/10S182J	R 659	RD1/4PU103J
R 459	RS1/10S822J	R 660	RD1/4PU102J
R 460	RS1/10S822J	R 661	RD1/4PU472J
R 461	RS1/10S221J	R 662	RD1/4PU221J
R 462	RS1/10S221J	R 663	RD1/4PU563J
R 465	RD1/4PU111J	R 664	RD1/4PU473J
R 466	RD1/4PU111J	R 665	RD1/4PU103J
R 467	RS1/10S222J	R 666	RD1/4PU103J
R 468	RS1/10S222J	R 667	RD1/4PU222J
R 469	RS1/10S473J	R 668	RD1/4PU472J
R 470	RS1/10S473J	R 669	RD1/4PU222J
R 501	RD1/4PU102J	R 671	RD1/4PU221J
R 502	RD1/4PU102J	R 672	RD1/4PU152J
R 503	RD1/4PU392J	R 676	RD1/4PU222J
R 504	RD1/4PU392J	R 678	RD1/4PU472J
R 505	RD1/4PU103J	R 679	RD1/4PU101J
R 506	RD1/4PU103J	R 680	RS1/10S472J
R 507	RD1/4PU105J	R 681	RD1/4PU132J
R 508	RD1/4PU105J	R 682	RD1/4PU132J
R 551	RD1/4PU473J	R 683	RD1/4PU103J
R 552	RD1/4PU473J	R 684	RD1/4PU223J
R 553	RD1/4PU563J	R 685	RD1/4PU223J
R 554	RD1/4PU563J	R 686	RD1/4PU223J
R 555	RD1/4PU512J	R 689	RD1/4PU563J
R 556	RD1/4PU512J	R 690	RD1/4PU563J
R 557	RD1/4PU512J	R 691	RD1/4PU563J
R 558	RD1/4PU512J	R 692	RD1/4PU563J
R 559	RD1/4PU201J	R 701	RD1/4PU243J
R 560	RD1/4PU201J	R 702	RD1/4PU243J
R 561	RD1/4PU133J	R 851	RS1/10S471J
R 562	RD1/4PU133J	R 852	RS1/10S471J
R 563	RD1/4PU101J	R 853	RS1/10S223J
R 564	RD1/4PU101J	R 854	RS1/10S223J
R 565	RD1/4PU243J	R 855	GGC1320
R 566	RD1/4PU243J	R 856	GGC1320
R 567	RD1/4PU101J	R 857	GGC1320
R 568	RD1/4PU101J	R 858	GGC1320
R 569	RD1/4PU101J	R 859	GGC1320
R 570	RD1/4PU101J	R 860	GGC1320
R 573	RS1/10S101J	R 861	GGC1320
R 574	RS1/10S101J	R 862	GGC1320
R 575	RS1/10S101J	R 865	RS1/10S821J
R 576	RS1/10S101J	R 866	RS1/10S821J
R 577	RS1/10S101J	R 867	RS1/10S223J

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
R 868	RS1/10S223J	C 502	CEAS1R0M50
R 869	RS1/10S472J	C 551	CEAS100M16
R 870	RS1/10S472J	C 552	CEAS100M16
R 871	RS1/10S472J	C 553	CKPUYB221K50
R 872	RS1/10S222J	C 554	CKPUYB221K50
R 902	RS1/2PMF220J	C 555	CEAS221M10
R 907	RS1/10S153J	C 556	CEAS221M10
R 909	RS1/2PMF220J	C 557	CFTLA103J50
R 910	RS1/10S153J	C 558	CFTLA103J50
R 911	RS1/10S102J	C 559	CCPUCH150J50
R 912	RD1/4PU272J	C 560	CCPUCH150J50
R 913	RS1/10S472J	C 561	337RZM050M1020
R 914	RS1/10S472J	C 562	337RZM050M1020
R 915	RS1/10S472J	C 563	337RZM050M1020
R 916	RD1/4PU332J	C 564	337RZM050M1020
R 917	RD1/4PU332J	C 567	CFTNA333J50
R 918	RS1/2PMF220J	C 568	CFTNA333J50
R 919	RS1/2PMF220J	C 569	CQMA102J50
R 920	RD1/4PU472J	C 570	CQMA102J50
R 921	RD1/4PU472J	C 571	CMA330J2H
R 922	RD1/4PU472J	C 572	CMA330J2H
R 923	RD1/4PU472J	C 651	CCH1036
R 924	RD1/4PU470J	C 652	CFTLA103J50
R 925	RD1/4PU470J	C 653	CEAS100M16
R 928	RD1/4PU470J	C 654	CEAS100M16
R 929	RD1/4PU470J	C 655	CFTLA103J50
R 932	RD1/4PU104J	C 656	CCH1183
R 935	RS1/10S392J	C 658	CEAS220M16
R 936	RS1/10S223J	C 659	CCH1183
R 937	RS1/10S103J	C 660	CFTLA105J50
R 938	RD1/4PU272J	C 661	CFTLA103J50
R 939	RD1/4PU272J	C 662	CFTLA103J50
R 947	RS1/2PMF560J	C 663	CFTLA824J50
R 948	RS1/2PMF560J	C 664	CCH1183
R 949	RD1/4PU163J	C 851	CKSQYB471K50
R 950	RS1/10S101J	C 852	CKSQYB471K50
R 951	RD1/4PU124J	C 853	CEAS100M16
CAPACITORS		C 854	CEAS100M16
C 101	CCSQCH470J50	C 855	CQMA472J50
C 102	CCSQCH470J50	C 856	CQMA472J50
C 103	CFTNA104J50	C 857	CCSQCH470J50
C 104	CFTNA104J50	C 858	CCSQCH470J50
C 105	CFTNA104J50	C 859	CCSQCH470J50
C 106	CFTNA104J50	C 860	CCSQCH470J50
C 107	CFTLA824J50	C 861	CKSQYB471K50
C 108	CFTLA824J50	C 862	CKSQYB471K50
C 109	CFTLA824J50	C 863	CEAS4R7M35
C 110	CFTLA824J50	C 864	CEAS4R7M35
C 111	CFTLA824J50	C 865	CCSQCH470J50
C 112	CFTLA824J50	C 902	CEAS221M10
C 113	CFTLA824J50	C 903	CEAS2R2M50
C 114	CFTLA824J50	C 904	CEAS101M16
C 451	CFTNA273J50	C 905	CQMA472J50
C 452	CFTNA273J50	C 906	CQMA472J50
C 453	CEAS4R7M35	C 907	CCH1310
C 454	CEAS4R7M35	C 908	478LBA050M2DC
C 455	CFTLA224J50	C 909	478LBA050M2DC
C 456	CFTLA224J50	C 912	CEAS470M16
C 457	CEAS101M16	C 913	CEAS470M16
C 458	CEAS101M16	C 914	CQMA102J50
C 459	CEAS470M10	C 915	CQMA102J50
C 460	CEAS470M10	C 919	CCH1310
C 501	CEAS1R0M50	C 920	CFTLA564J50
		C 927	CQMA102J50
		C 932	CEAS470M10

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
<div><div>A</div><div>Unit Number : HWH0099(PRS-X220/X1R/UC) Unit Name : Amp Unit</div></div>		D 661 Diode	1SS133
		D 903 Diode	RM4Z
		D 907 Diode	FML22S
		D 908 Diode	HZS16L(1)
		D 909 Diode	HZS16L(1)
MISCELLANEOUS			
IC 101 IC	NJM2068D		
IC 102 IC	NJM2068D	D 910 Diode	FML22R
IC 103 IC	NJM2068D	D 911 Diode	1SS133
IC 104 IC	NJM2068D	T 901 Transformer	HTT0005
IC 451 IC	NJM2068D	TH 901 Thermistor	CCX1013
		TH 902 Thermistor	CCX1013
IC 452 IC	NJM2068D		
IC 651 IC	PA2027A	TH 903 Thermistor	CCX1035
IC 851 IC	NJM2068D	S 101 Switch(LPF/HPF)	CSH1029
IC 852 IC	NJM2068D	VR 101 Variable Resistor 20kΩ(E)	CCS1266
IC 853 IC	NJM2068D	VR 451 Volume 20kΩ(C)	HCS0001
		VR 453 Variable Resistor 10kΩ(A)	CCS1265
IC 901 IC	UPC494C		
Q 203 Transistor	DTA124ES	VR 551 Semi-fixed 10kΩ(B)	CCP1319
Q 204 Transistor	2SC2458	VR 552 Semi-fixed 10kΩ(B)	CCP1319
Q 205 Transistor	2SC2458	FU 901 Fuse 30A	HEK0030
Q 551 Transistor	2SA1928		
		RESISTORS	
Q 552 Transistor	2SA1928	R 101	RS1/10S103J
Q 555 Transistor	2SC1845	R 102	RS1/10S103J
Q 556 Transistor	2SC1845	R 103	RS1/10S103J
Q 557 Transistor	2SA992	R 104	RS1/10S103J
Q 558 Transistor	2SA992	R 105	RS1/10S103J
Q 559 Transistor	2SC1845		
Q 560 Transistor	2SC1845	R 106	RS1/10S103J
Q 565 FET	94-4980	R 107	RS1/10S472J
Q 566 FET	94-4980	R 108	RS1/10S472J
Q 567 FET	94-4981	R 109	RS1/10S562J
		R 110	RS1/10S562J
Q 568 FET	94-4981		
Q 571 Transistor	2SD1768S	R 111	RS1/10S103J
Q 572 Transistor	2SD1768S	R 112	RS1/10S103J
Q 573 Transistor	2SC1845	R 113	RS1/10S123J
Q 574 Transistor	2SC1845	R 114	RS1/10S123J
		R 115	RS1/10S103J
Q 653 Transistor	2SA1048		
Q 654 Transistor	2SC2458	R 116	RS1/10S103J
Q 655 Transistor	2SC2458	R 119	RS1/10S123J
Q 657 Transistor	2SA1048	R 120	RS1/10S123J
Q 658 Transistor	2SC2458	R 203	RD1/4PU222J
		R 204	RD1/4PU222J
Q 659 Transistor	2SA1048		
Q 660 Transistor	2SB1243	R 451	RS1/10S392J
Q 661 Transistor	2SC2458	R 452	RS1/10S392J
Q 902 Transistor	2SA1048	R 455	RS1/10S182J
Q 903 Transistor	2SB1277	R 456	RS1/10S182J
		R 459	RS1/10S333J
Q 904 Transistor	2SB1277		
Q 905 FET	IRFIZ44N	R 460	RS1/10S333J
Q 906 FET	IRFIZ44N	R 461	RS1/10S221J
Q 907 Transistor	2SD2395	R 462	RS1/10S221J
Q 908 Transistor	2SB1566	R 465	RD1/4PU101J
		R 466	RD1/4PU101J
Q 909 Transistor	2SD1919		
Q 910 Transistor	2SD1919	R 467	RS1/10S222J
Q 911 FET	IRFIZ44N	R 468	RS1/10S222J
Q 912 FET	IRFIZ44N	R 469	RS1/10S473J
D 501 Diode	HZS5(C3)	R 470	RS1/10S473J
		R 501	RD1/4PU102J
D 502 Diode	HZS5(C3)		
D 551 Diode	1SS133	R 502	RD1/4PU102J
D 552 Diode	1SS133	R 503	RD1/4PU392J
D 557 Diode	1SS133	R 504	RD1/4PU392J
D 558 Diode	1SS133	R 505	RD1/4PU103J
		R 506	RD1/4PU103J
D 601 LED	SML210LT(LMN)		
D 653 Diode	1SS133	R 507	RD1/4PU105J
D 654 Diode	HZS7L(B2)	R 508	RD1/4PU105J
D 658 Diode	1SS133	R 551	RD1/4PU473J
D 659 Diode	1SS133	R 552	RD1/4PU473J
		R 553	RD1/4PU683J

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
R 554	RD1/4PU683J	R 856 (RN1/10SE1002D)	GGC1320
R 555	RD1/4PU512J	R 857 (RN1/10SE1002D)	GGC1320
R 556	RD1/4PU512J	R 858 (RN1/10SE1002D)	GGC1320
R 557	RD1/4PU512J	R 859 (RN1/10SE1002D)	GGC1320
R 558	RD1/4PU512J	R 860 (RN1/10SE1002D)	GGC1320
R 559	RD1/4PU271J	R 861 (RN1/10SE1002D)	GGC1320
R 560	RD1/4PU271J	R 862 (RN1/10SE1002D)	GGC1320
R 561	RD1/4PU153J	R 865	RS1/10S821J
R 562	RD1/4PU153J	R 866	RS1/10S821J
R 563	RD1/4PU101J	R 867	RS1/10S223J
R 564	RD1/4PU101J	R 868	RS1/10S223J
R 565	RD1/4PU123J	R 869	RS1/10S472J
R 566	RD1/4PU123J	R 870	RS1/10S472J
R 567	RD1/4PU680J	R 871	RS1/10S472J
R 568	RD1/4PU680J	R 872	RS1/10S222J
R 569	RD1/4PU101J	R 902	RS1/2PMF220J
R 570	RD1/4PU101J	R 907	RS1/10S473J
R 575	RS1/10S101J	R 909	RS1/2PMF220J
R 576	RS1/10S101J	R 910	RS1/10S153J
R 577	RS1/10S101J	R 911	RS1/10S102J
R 578	RS1/10S101J	R 912	RD1/4PU272J
R 591	SPR30R1J	R 913	RS1/10S472J
R 592	SPR30R1J	R 914	RS1/10S472J
R 593	SPR30R1J	R 915	RS1/10S472J
R 594	SPR30R1J	R 916	RD1/4PU332J
R 595	RD1/4PU563J	R 917	RD1/4PU332J
R 596	RD1/4PU563J	R 918	RS1/2PMF220J
R 597	RD1/4PU564J	R 919	RS1/2PMF220J
R 598	RD1/4PU564J	R 920	RD1/4PU472J
R 599	RD1/4PU473J	R 921	RD1/4PU472J
R 600	RD1/4PU473J	R 922	RD1/4PU472J
R 601	RS1/2PMF100J	R 923	RD1/4PU472J
R 602	RS1/2PMF100J	R 924	RD1/4PU470J
R 605	RD1/4PU331J	R 925	RD1/4PU470J
R 606	RD1/4PU331J	R 928	RD1/4PU470J
R 657	RD1/4PU104J	R 929	RD1/4PU470J
R 658	RD1/4PU472J	R 932	RD1/4PU104J
R 659	RD1/4PU103J	R 935	RS1/10S392J
R 660	RD1/4PU102J	R 936	RS1/10S223J
R 661	RD1/4PU472J	R 937	RS1/10S103J
R 662	RD1/4PU221J	R 938	RD1/4PU272J
R 663	RD1/4PU563J	R 939	RD1/4PU272J
R 664	RD1/4PU473J	R 947	RS1/2PMF560J
R 665	RD1/4PU103J	R 948	RS1/2PMF560J
R 666	RD1/4PU103J	R 949	RD1/4PU153J
R 667	RD1/4PU222J	R 950	RS1/10S101J
R 668	RD1/4PU472J	R 951	RD1/4PU563J
R 669	RD1/4PU222J	CAPACITORS	
R 671	RD1/4PU221J	C 101	CCSQCH470J50
R 672	RD1/4PU152J	C 102	CCSQCH470J50
R 676	RD1/4PU222J	C 103	CFTNA104J50
R 678	RD1/4PU472J	C 104	CFTNA104J50
R 679	RD1/4PU101J	C 105	CFTNA104J50
R 680	RS1/10S472J	C 106	CFTNA104J50
R 681	RD1/4PU361J	C 451	CFTNA273J50
R 682	RD1/4PU361J	C 452	CFTNA273J50
R 683	RD1/4PU103J	C 453	CFTNA273J50
R 684	RD1/4PU223J	C 454	CEAS4R7M35
R 685	RD1/4PU223J	C 455	CEAS4R7M35
R 686	RD1/4PU223J	C 456	CFTLA224J50
R 851	RS1/10S471J	C 457	CFTLA224J50
R 852	RS1/10S471J	C 458	CFTLA473J50
R 853	RS1/10S223J	C 459	CFTLA473J50
R 854	RS1/10S223J		CEAS470M16
R 855 (RN1/10SE1002D)	GGC1320		

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
C 460	CEAS470M16	C 851	CKSQYB471K50
C 501	CEAS1R0M50	C 852	CKSQYB471K50
C 502	CEAS1R0M50	C 853	CEAS100M16
C 551	CEAS100M16	C 854	CEAS100M16
C 552	CEAS100M16	C 855	CQMA472J50
C 553	CKPUYB221K50	C 856	CQMA472J50
C 554	CKPUYB221K50	C 857	CCSQCH470J50
C 555	CEAS101M16	C 858	CCSQCH470J50
C 556	CEAS101M16	C 859	CCSQCH470J50
C 557	CFTLA103J50	C 860	CCSQCH470J50
C 558	CFTLA103J50	C 861	CKSQYB471K50
C 559	CCPUCH150J50	C 862	CKSQYB471K50
C 560	CCPUCH150J50	C 863	CEAS4R7M35
C 561	337RZM050M1020	C 864	CEAS4R7M35
C 562	337RZM050M1020	C 865	CCSQCH470J50
C 563	337RZM050M1020	C 901	3300μF/16V
C 564	337RZM050M1020	C 902	CCH1211
C 565	CMA330J2H	C 903	CEAS221M10
C 566	CMA330J2H	C 904	CEAS2R2M50
C 567	CFTNA333J50	C 905	CEAS101M16
C 568	CFTNA333J50	C 906	CQMA472J50
C 569	CQMA102J50	C 907	CCH1211
C 570	CQMA102J50	C 908	478LBA035M2BD
C 651	220μF/10V	C 909	478LBA035M2BD
C 652	CCH1036	C 912	CEAS470M16
C 653	CFTLA103J50	C 913	CEAS470M16
C 654	CEAS100M16	C 914	CQMA102J50
C 655	CEAS100M16	C 915	CQMA102J50
C 656	CFTLA103J50	C 920	CFTLA564J50
C 657	470μF/16V	C 927	CQMA102J50
C 658	470μF/16V	C 932	CEAS470M10
C 659	470μF/16V		
C 660	CCH1183		
C 661	CFTLA105J50		
C 662	CFTLA103J50		
C 662	CFTLA103J50		

6. ADJUSTMENT

IDLE CURRENT ADJUSTMENT

Conditions: Terminate inputs with 1kΩ resistors. No load connected to output. 14.4V DC power ON for 30 seconds then adjust.

• PRS-X720/X1R/UC

Turn power on. Measure the voltage across resistor R586. After 30 seconds from turn on of amplifier, adjust VR552 so voltage is 4.5mV ± 0.5mV.

Repeat this step with R585 and VR551.

• PRS-X320/X1R/UC

Turn power on. Measure the voltage across resistor R588. After 30 seconds from turn on of amplifier, adjust VR552 so voltage is 4.5mV ± 0.5mV.

Repeat this step with R587 and VR551.

• PRS-X220/X1R/UC

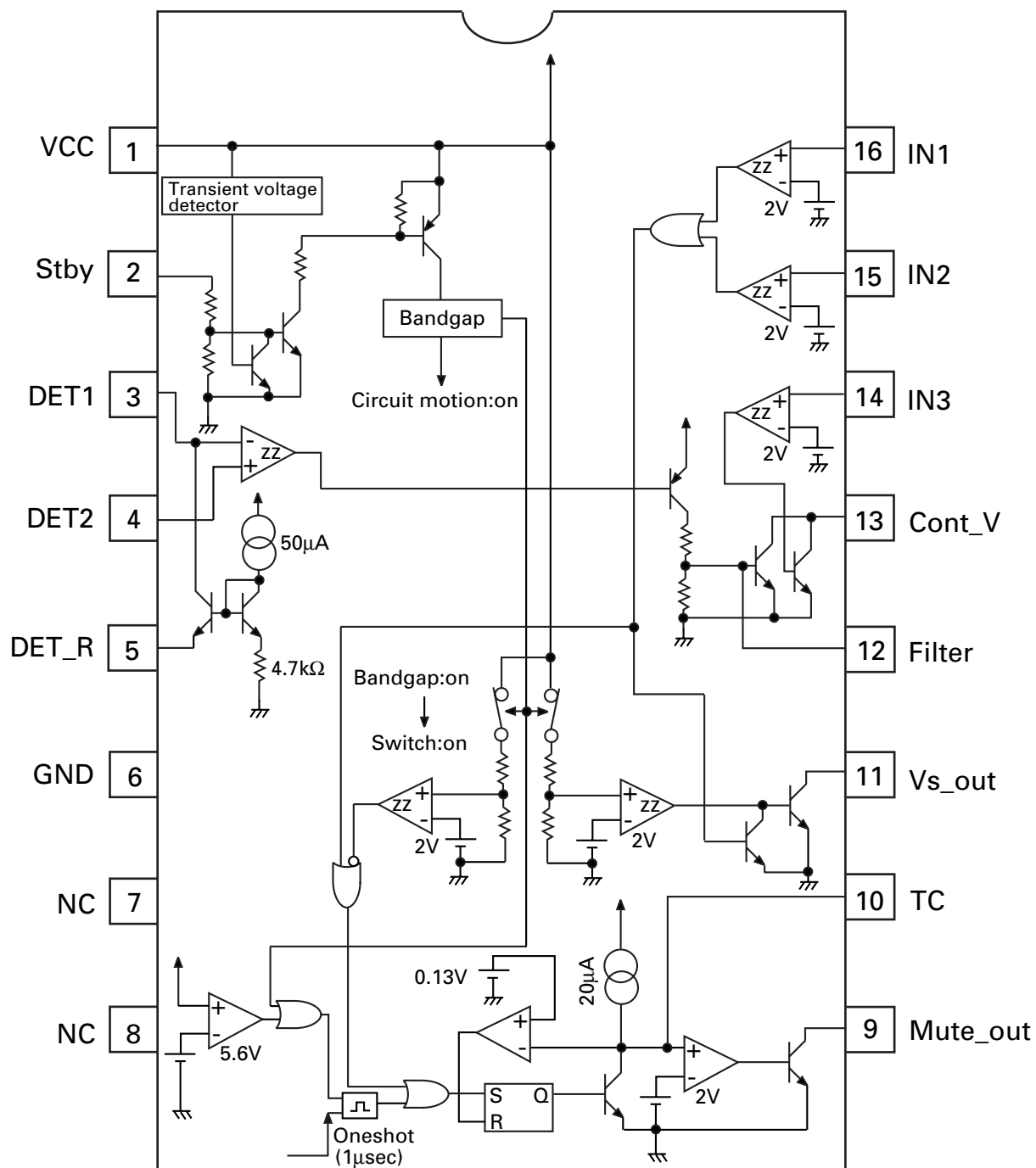
Turn power on. Measure the voltage across resistor R594. After 30 seconds from turn on of amplifier, adjust VR552 so voltage is 4.5mV ± 0.5mV.

Repeat this step with R593 and VR551.

7. GENERAL INFORMATION

7.1 IC

PA2027A



7.2 DISASSEMBLY

● Removing the two Cases(Fig.1)

- ➡ 1 Remove the two screws.
Remove the two brackets.
- ➡ 2 Remove the eight screws.
- ➡ 3 Remove the four screws.
- ➡ 4 (PRS-X720/X1R/UC)Remove the six screws.
(PRS-X320/X1R/UC)Remove the four screws.
(PRS-X220/X1R/UC)Remove the two screws.
Remove the two Cases.

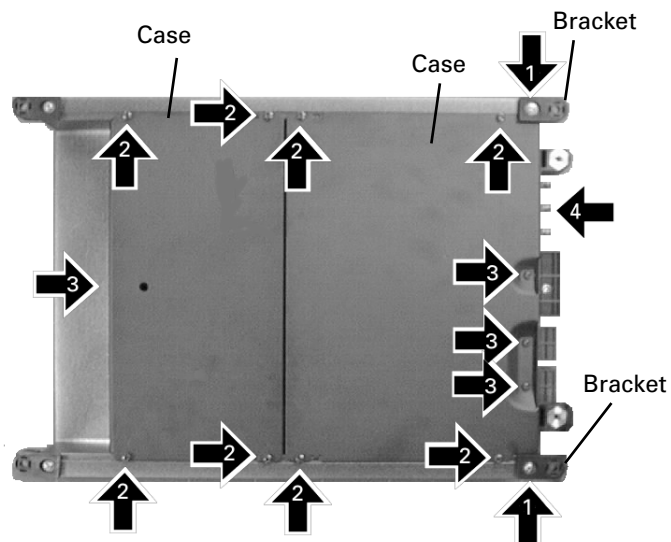


Fig.1

● Removing the Amp Unit(not shown)

- (PRS-X720/X1R/UC)Remove the eleven screws.
 (PRS-X320/X1R/UC)Remove the seven screws.
 (PRS-X220/X1R/UC)Remove the six screws.
 Remove the Amp Unit.

8. OPERATIONS AND SPECIFICATIONS

8.1 OPERATIONS

Setting the Unit

Gain Control

If the sound level is too low, even when the volume of the car stereo used along with this power amplifier is turned up, turn gain control on the back of the power amplifier clockwise. If the sound distorts when the volume is turned up, turn the gain control counter-clockwise.

- When using with an RCA equipped car stereo (standard output of 500 mV), set to the NORMAL position. When using with an RCA equipped Pioneer car stereo with max. output of 4 V or more, adjust level to match the car stereo output level.

Bass Boost Level Control

Bass boost level control can boost the level around the frequency selected by the bass boost frequency control from 0 to 18 dB.

Bass Boost Frequency Control (PRS-X720 and PRS-X320)

You can select a bass boost frequency from 40 to 120 Hz with the bass boost control.

- Bass Boost Level Control and Bass Boost Frequency Control can be adjusted only when the LPF/HPF select switch is set to a position other than HPF.

Power Indicator

The power indicator lights when the power is switched on.

Subsonic Select Switch (PRS-X720 and PRS-X320)

The subsonic filter cuts inaudible frequencies below 15 Hz to eliminate unwanted vibrations and minimize power loss.

Cut Off Frequency Control

If the LPF/HPF select switch is set to LPF (or HPF), you can select a cut off frequency from 50 to 120 Hz.

LPF (Low-Pass Filter)/HPF (High-Pass Filter) Select Switch

Set the LPF/HPF select switch as follows according to the type of speaker that is connected to the speaker output connector and the car stereo system:

LPF/HPF Select Switch	Audio frequency range to be output	Speaker Type	Remarks
LPF (left)	* — 50 to 120 Hz	Sub-woofer	Connect a sub-woofer.
OFF (center)	Full range	Full range	
HPF (right)	* 50 to 120 Hz —	Full range	Use if you want to cut the very-low-frequency range* because it is not necessary for the speakers you are using.

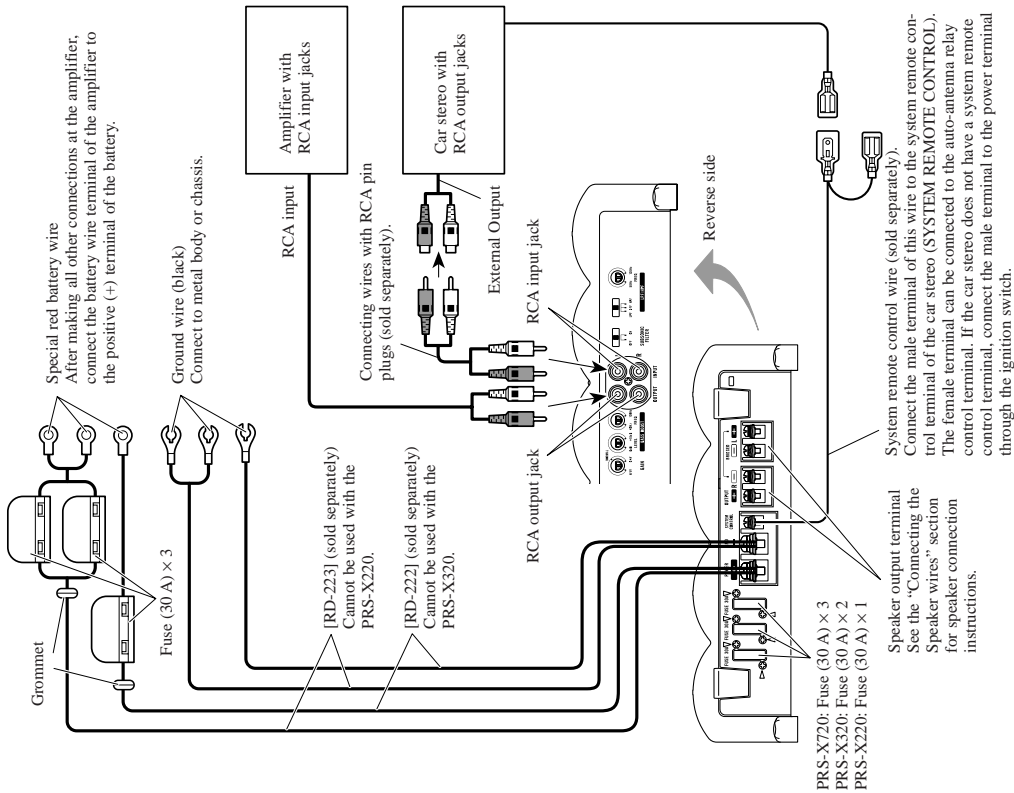
* See the "Cut Off Frequency Control" section.

Connecting the Unit

To prevent damage

- Do not ground the speaker wire directly or connect a negative (–) lead wire for several speakers.
 - This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.
 - If the car stereo is kept on for a long time while the engine is at rest or idling, the battery may go dead. Turn the car stereo off when the engine is at rest or idling.
 - If the system remote control wire of the amplifier is connected to the power terminal through the ignition switch (12 V DC), the amplifier will always be on when the ignition is on—regardless of whether the car stereo is on or off. Because of this, the battery could go dead if the engine is at rest or idle.
- Install and route the separately sold battery wire as far away as possible from the speaker wires. Install and route the separately sold battery wire and ground wire, speaker wires, and the amplifier as far away as possible from the antenna, antenna cable and tuner.
 - Cords for this product and those for other products may be different colors even if they have the same function. When connecting this product to another product, refer to the supplied Installation manuals of both products and connect cords that have the same function.

Connection Diagram



8.2 SPECIFICATIONS

Specifications

Power source.....	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system.....	Negative type
Current consumption (PRS-X720).....	46 A (at continuous power, 4 Ω)
(PRS-X320).....	32.5 A (at continuous power, 4 Ω)
(PRS-X220).....	19.2 A (at continuous power, 4 Ω)
Average current drawn* (PRS-X720).....	15 A (4 Ω for two channels)
(PRS-X320).....	28 A (4 Ω for one channel)
(PRS-X220).....	11 A (4 W for two channels)
Fuse (PRS-X720).....	20 A (4 Ω for one channel)
(PRS-X320).....	6.5 A (4 Ω for two channels)
(PRS-X220).....	10 A (4 Ω for one channel)
Dimensions (PRS-X720).....	30 A × 3
(PRS-X320).....	30 A × 2
(PRS-X220).....	30 A × 1
Weight (PRS-X720).....	6.5 kg (14.3 lbs) (Leads for wiring not included)
(PRS-X320).....	5.5 kg (12.2 lbs) (Leads for wiring not included)
(PRS-X220).....	4.5 kg (9.9 lbs) (Leads for wiring not included)
Continuous power output (PRS-X720).....	100 W × 2 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.08% THD)
(PRS-X320).....	400 W × 1 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.8% THD)
(PRS-X220).....	200 W × 2 (at 14.4 V, 2 Ω, 20 — 20,000 Hz, 0.8% THD)
(PRS-X320).....	200 W × 1 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.8% THD)
(PRS-X220).....	100 W × 2 (at 14.4 V, 2 Ω, 20 — 20,000 Hz, 0.8% THD)
	120 W × 1 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.8% THD)
	60 W × 2 (at 14.4 V, 2 Ω, 20 — 20,000 Hz, 0.8% THD)
Load impedance.....	4 Ω (1 — 8 Ω allowable)
Frequency response (PRS-X720).....	(Bridge connection: 2 — 8 Ω allowable)
(PRS-X320).....	10 — 50,000 Hz (+0 dB, -1 dB)
(PRS-X220).....	10 — 50,000 Hz (+0 dB, -1 dB)
Signal-to-noise ratio (PRS-X720).....	105 dB (IHF-A network)
(PRS-X320).....	100 dB (IHF-A network)
(PRS-X220).....	100 dB (IHF-A network)
Distortion (PRS-X720).....	0.01% (10 W, 1 kHz)
(PRS-X320).....	0.01% (10 W, 1 kHz)
(PRS-X220).....	0.01% (10 W, 1 kHz)
Separation (PRS-X720).....	70 dB (1 kHz)
(PRS-X320).....	70 dB (1 kHz)
(PRS-X220).....	60 dB (1 kHz)
Low pass filter.....	Cut off frequency: 50 — 120 Hz
High pass filter.....	Cut off frequency: 50 — 120 Hz
Bass boost (PRS-X720).....	Cut off frequency: 50 — 120 Hz
(PRS-X320).....	Frequency: 40 — 120 Hz
(PRS-X220).....	Gain: 0 — 18 dB
Subsonic filter (PRS-X720).....	Frequency: 15 Hz
(PRS-X320).....	Slope: -24 dB/oct
Maximum input level / impedance.....	6.5 V/22 kΩ (0.4 — 6.5 V)

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.

*Average current drawn

- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.